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ANNUAL REPORT

OF THE

Department of Public Works

OF THE

PROVINCE OF ALBERTA

1963-64

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON, ALBERTA
Printed by LEE S. WALL, Printer to the Queen's Most Excellent Majesty
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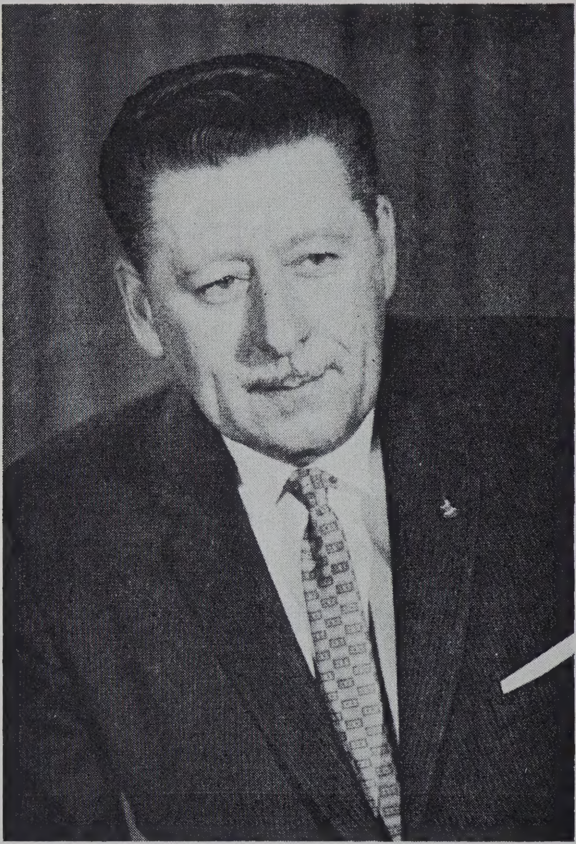

THE HONOURABLE F. C. COLBORNE

Minister of Public Works

EDMONTON, October 1, 1964.

To His Honour

J. PERCY PAGE,

Lieutenant Governor of the

Province of Alberta.

Sir:

The undersigned has the honour to submit herewith the Report of the Department of Public Works for the year ended March 31, 1964.

Respectfully submitted,

F. C. COLBORNE,

Minister of Public Works.

MR. ARTHUR ARNOLD
Deputy Minister of Public Works

DEPARTMENT OF PUBLIC WORKS

Edmonton, Alberta
October 1, 1964

TO:

The Honourable F. C. Colborne,
Minister,
Department of Public Works.

Sir:

I have the honour to submit herewith a report covering the activities of the Department of Public Works for the fiscal year ending March 31, 1964.

During the past year the Department undertook an extensive programme of construction and maintenance, the details of which are contained in this report. A number of photographs have been included to illustrate some of the more distinctive buildings that were under construction or completed in 1963-64.

The Mechanical Branch, which is responsible for the operation and maintenance of the power and heating plant steam services, continued this year to provide its services to eighteen Provincial Institutions.

The Department designed and supervised construction of a number of retail outlets at various points in the Province for the Alberta Liquor Control Board.

Mr. J. F. Hunt, who has served the Department as Chief Engineer since June 1, 1955, resigned on December 31, 1963, in order to continue his career in private industry. Mr. H. H. Neelands, who has served the Department in the past as Chief Electrical Engineer, was promoted to succeed Mr. Hunt.

Respectfully submitted,

ARTHUR ARNOLD,
Deputy Minister of Public Works.

THE FUNCTION OF THE DEPARTMENT OF PUBLIC WORKS

The Department of Public Works is required to provide suitable accommodation, the necessary furnishings and equipment to all Departments of the Government so that the Departments may carry out the various functions required of them. Such accommodation is provided in buildings rented, purchased or constructed by the Department of Public Works.

The Department is responsible for the construction of all Provincial Government Buildings.

The chief officials of the Department are:

Minister of Public Works	Hon. F. C. Colborne
Deputy Minister of Public Works	Mr. A. Arnold
Assistant Deputy Minister of Public Works (Administration)	Mr. S. E. Kenworthy
Chief Architect	Mr. H. A. Henderson
Chief Engineer	*Mr. H. H. Neelands
Mechanical Superintendent	Mr. F. E. Coe
Administrative Accountant	Mr. K. C. Thomas
Superintendent of Maintenance	Mr. H. W. Brettelle
Superintendent of Construction	Mr. H. Kinsey
Co-ordinator of Capital Works	Mr. V. C. Heim
Property Administrator	Mr. E. E. Wilson

The Department is also responsible for the servicing and maintenance of all Provincial Government owned buildings, with the exception of various self-contained institutions, such as the Provincial Gaols, the Schools of Agriculture and the University of Alberta. The maintenance and servicing of these buildings needs the services of a large group of men of assorted technical skills. Carpenters, plumbers, electricians and other tradesmen keep these buildings is good repair. Gardeners maintain the surrounding grounds which are quite extensive at some points, namely, the Provincial Mental Institute, Oliver and the Institute of Technology and Art, Calgary. Caretakers keep the buildings clean, men operate the elevators, and watchmen guard the buildings at night.

The extensive programme of construction which we are presently undertaking requires the services of a large staff of architects,

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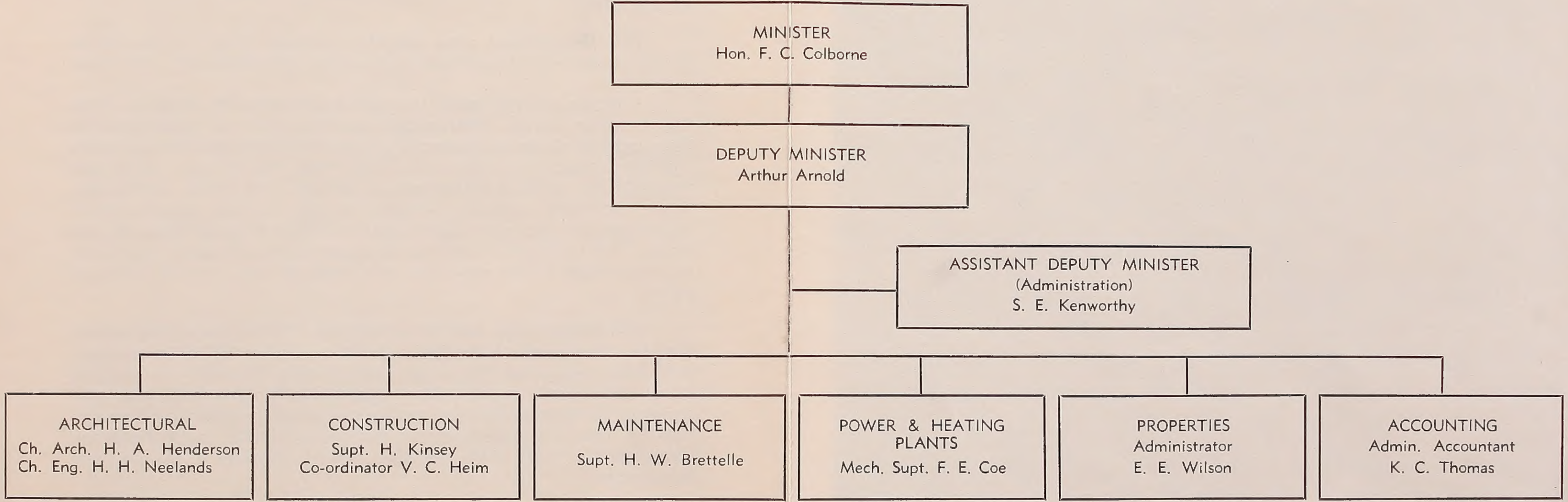
*April 1, 1964.

ORGANIZATION CHART OF THE DEPARTMENT OF PUBLIC WORKS



Design and plans for construction of new buildings and renovation of old buildings. Preparation specifications.

Inspection of plans for construction and inspection and supervision of new construction.

Contracts, progress reports, equipment and furnishings, D.P.W. job orders.

Maintenance and caretaking of all government buildings and grounds. Supervision of all tradesmen and workshops. Servicing of government vehicles. Operation of D.P.W. truck fleet.

Maintenance and operation of Heating & Power Plants and utility services as required at major government institutions.

Properties.
Rentals.
Telephones.
Parking.
Crown Properties Municipal Grants Act

GENERAL OFFICE
Accounting services.
Personnel records.
Pension data.
Statistics.

STOCK ADVANCE
Supply and maintenance of stores for tradesmen, etc.

engineers, draughtsmen, surveyors and building inspectors, who design and plan the buildings and supervise the work of the contractors. Some urgent and also minor construction work is undertaken by our own forces. Such work is kept to a minimum because it is the policy of the Department to have whatever construction work necessary done whenever possible by the contractors. This requires the Department to maintain a staff of tradesmen which is augmented by temporary staff as the requirements of the work necessitates.

The Department also operates various trade shops where furniture and equipment such as laboratory benches, etc. are made.

A group of engineers, firemen and tradesmen working under the direction of the Mechanical Superintendent is responsible for the supply of electrical power, heat, water and sewage disposal at the eighteen largest institutions. These men also design, install and maintain the special equipment necessary. At these institutions, farm machinery, milking, canning, laundry, kitchen and fire fighting equipment are also maintained and kept in good repair by the staff. The utilities and maintenance servicing of a large institution is comparable to the servicing of a town of two or three thousand people.

The Department also has a number of other functions including the arrangements for the installation and rental of telephones, and, when required, the buying and leasing of lands for building sites. The Department is also responsible for the renting to civil servants Government-owned residences which are located throughout the Province, mainly at the Provincial Mental Institutions and Gaols, and parking stalls on Government property in Calgary and Edmonton.

A large modern garage, located on the ground floor of Block "E", Terrace Building, Edmonton, services the automobile fleet of the Government.

CALLING OF TENDERS AND AWARDING OF CONTRACTS

Departments of the Government who need additional work space submit their space requirements to the Department of Public Works. If, in order to provide this additional space, a new building is deemed necessary, the Architectural Office effects liaison with the Department or Departments concerned and the actual space requirements and the purpose of the proposed building is determined. In co-operation with the Departments who will be housed in the building, preliminary plans are drawn and from such plans an estimate of the cost of construction is obtained. A sum of money is submitted in the annual estimates for the next fiscal year for approval by the Legislature. Needless to say, the actual amount of money requested is dependent upon the amount of construction that this Department estimates will be done in the following fiscal year. If actual construction is not expected in the following fiscal year, a nominal sum not exceeding $10,000.00 is requested to cover preliminary investigations on the site which may include soil testing and/or line relocations.

The design and the basic construction materials of which the structure will be built are determined by the Deputy Minister in consultation with the Chief Architect and the Chief Engineer. Detailed plans are then drawn and submitted for approval to the Deputy Minister bearing the signature of the Chief Engineer and the Chief Architect. If approval is obtained from the Deputy Minister, the plans are submitted to the Minister of the Departments concerned and these Ministers are required to sign the plans. Finally, the plans are submitted to the Minister of the Department of Public Works for signature.

Advertisements calling for tenders are placed in the major newspapers throughout the Province, in Trade Papers and the various Builders' Exchanges and such advertisements usually run for a period of three days.

The size of the project under construction determines the length of the "tender period". All tenders are opened in public at two o'clock on a Thursday afternoon in the Conference Room of the Department of Public Works. The Department will consider the use of acceptable alternate materials to those specified during the "tender period" but applications for such alternate materials will not be accepted later than ten days prior to the closing date of tenders. No approval for the employment of alternate materials is considered after the contract has been awarded. When it is necessary to issue an addendum approving an alternate material or a change in design, such addendums are issued at least seven days prior to the closing of tenders and, incidentally, these addendums are sent by double registered mail to any contractor who has indicated his intention to bid on the project by obtaining plans and specifications. The plans and specifications are available by the payment of a nominal deposit only to those firms registered in the Province of Alberta. This is refunded when the plans and specifications are returned to the Department. Additional copies of the plans and specifications are also sent to the Builders' Exchanges in the major cities throughout the Province.

During the past year the Department has continued to use the services of the Alberta Bid Depository for all contracts exceeding $100,000.00. The Alberta Bid Depository is operated by the Alberta Builders' Exchange Council which represents the building industry in Alberta. This system requires all sub-contractors to send to the Alberta Bid Depository any bids the sub-contractor wishes to submit to a general contractor. The Alberta Bid Depository distributes to the general contractors the bids received from the sub-contractors.

Each tenderer must submit with his tender a sum of not less than 10% of the total tender price. While such deposit is usually by certified cheque, the Department would accept cash, Dominion of Canada Bearer Bonds or a Bid Bond. At the close of the tender opening, the tender deposits submitted by the two lowest tenderers are held pending a review of tenders. The lowest tender is checked carefully by the Chief Architect and the Chief Engineer to ensure that it complies with the specifications and that all sub-contractors are shown and that those shown are acceptable to the Department. A Bid Sheet is prepared and signed by the committee that opened the tenders and forwarded to the Minister of Public Works with a Press Release giving complete details. Following the Minister's approval, a letter of intent is forwarded by the Department to the successful tenderer advising that contract documents are being prepared for his signature. The contract documents are prepared in triplicate and forwarded to the contractor. When returned properly signed by the contractor, they are then signed by the Minister of Public Works and the contractor is notified that he may commence work.

When the successful contractor returns the signed contract documents to the Department he may substitute his certified cheque, which equals not less than 10% of the total tendered price, with 100% Material and Performance Bond. If he does not do this but leaves as a guarantee or security deposit the original certified cheque or replaces this cheque with Dominion of Canada Bearer Bonds equal to 10% of the total tendered price, the Department retains as a holdback 10% of the total of each progress estimate. However, if the contractor does substitute a 100% Material and Performance Bond for his original certified cheque, the Department retains 15% of the total of each progress estimate. It will thus be seen that when the contractor has completed the project, the Department has either:—

1. A certified cheque or Dominion of Canada Bearer Bonds equal to 10% of the total tendered price as a guarantee for the satisfactory completion of the contract and also a holdback equal to 10% of the total payments made by progress estimates, or
2. A 100% Material and Performance Bond as a guarantee for the satisfactory completion of the contract and also a holdback equal to 15% of the total payments made by progress estimates.

The Department makes an inspection of the completed project and if the contract has been completed to the satisfaction of the Department, payment of the monies held back from the payment of each progress estimate is made to the contractor 30 days later. If the project is not completed to the satisfaction of the Department, the payment of the monies held back from the payment of each progress estimate is withheld until all defects and deficiencies have been corrected.

Material and performance bonds expire one year after the acceptance of the project thus providing a guarantee for that period. If a certified cheque or Government of Canada bonds equal to 10% of the tender price has been deposited as a guarantee for the successful completion of the contract, the cheque or bonds are returned to the contractor one year after the completion of the project.

TENDERS CALLED AND CONTRACTS AWARDED

THE FOLLOWING BIDS WERE OPENED IN PUBLIC AND CONTRACTS AWARDED DURING THE FISCAL YEAR WHICH ENDED MARCH 31, 1964. Bids marked with an asterisk were withdrawn by the tenderers before this Department had forwarded a letter of acceptance to the bidder or were rejected by this Department because the bidder failed to comply with the regulations governing the submission of tenders. Where the low bid was withdrawn or rejected and the contract was awarded to the second lowest bidder, authority for so doing was obtained by Order of the Lieutenant Governor in Council

CONTRACT TENDERED FOR AND TENDERERS			AMOUNT BID
ELEVATOR FOR THE OLD COURT HOUSE (GLENBOW FOUNDATION), CALGARY. April 11th, 1963.			
T. E. Bate Engineering Ltd.		Gear	$ 15,594.00
		Plunger	17,884.00
Otis Elevator Co. Ltd.		Gear	14,745.00
		Plunger	No Bid
Turnbull Elevator of Canada Ltd.		Gear	14,305.00
		Plunger	14,700.00
Peterson & Cowan, Division of		Gear	No Bid
Montgomery Elevator Co.	awarded	Plunger	**13,824.00**
INSTALLATION OF WATER & SEWER LINES, PROVINCIAL GAOL, FORT SASKATCHEWAN April 18th, 1963.			
Conacher Construction Ltd.			14,230.00
G. C. McLeod & Co. Ltd.			8,762.60
N. S. Pawliuk & Sons Contracting Ltd.			7,735.00
Expert Ditchers Co. Ltd.			6,966.50
L. F. Wilson Construction Ltd.	awarded		**6,533.00**
LABOUR ONLY TO SUSPEND CHANNEL AND METAL LATH CEILING, ETC., DORMITORY #3, PROVINCIAL MENTAL INSTITUTE, OLIVER. April 25th, 1963.			
George R. Byer & Associates Ltd.			7,700.00* plus labour price for plastering to concrete block and tile $1.50 square yard.
Sullivan & Stewart Plastering Contractors Ltd.			Labour only to lath and plaster ceiling $3.95 square yard. * Labour only plaster block walls $1.55 square yard. *
C. Beckett & Co. (Edmonton) Ltd.			3,390.00*
Joseph Curial Plastering			8,450.00
Fred Blanchard & Son (1963) Ltd.	awarded		**6,975.00**

CONTRACT TENDERED FOR AND TENDERERS	**AMOUNT BID**
PAVING AND RELATED WORK, VARIOUS GOVERNMENT INSTITUTIONS, CALGARY. May 16th, 1963.	
M. & S. Paving Ltd.	29,316.25
Standard Gravel & Surfacing of Canada Ltd.	27,755.70
Pioneer Paving Ltd.	27,708.00
Gallelli and Sons Co. Ltd.	25,149.75
Everall Construction (Calgary) Ltd. awarded	**24,159.90**
GRADING AT DEERHOME INSTITUTION, RED DEER. May 16th, 1963.	
W. J. Mitchell Excavating	9,600.00
Beckley Campbell Construction Co. Ltd. awarded	**7,260.00**
GRADING, PAVING AND RELATED WORK, PROVINCIAL MENTAL HOSPITAL, PONOKA. May 16th, 1963.	
Arthur A. Voice Construction Co. Ltd.	69,631.60
Everall Construction Ltd. awarded	**57,993.25**
PAVING AND RELATED WORK, VARIOUS GOVERNMENT INSTITUTIONS, EDMONTON. May 30th, 1963.	
McNamara Construction Western Ltd.	79,944.60
Arthur A. Voice Construction Co. Ltd.	64,962.30
O.K. Construction Ltd.	59,926.35
Nadon Paving Ltd.	58,692.80
Everall Construction Ltd.	58,304.00
W. C. Wells Construction Co. Ltd.	55,383.70
O'Hanlon Paving Ltd. awarded	**53,386.30**
PAVING AND RELATED WORK, HORTICULTURAL STATION, BROOKS. June 6th, 1963.	
M. & S. Paving Ltd.	61,148.00
Kenwood Engineering Construction Ltd.	57,076.20
Gallelli & Sons Co. Ltd.	55,790.00
Hat Paving Co. Ltd.	48,768.00
Everall Construction Ltd.	46,630.00
Lewis & Wilson Excavating Contractors Ltd. awarded	**46,233.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
SUPPLY AND INSTALLATION OF ORCHESTRA LIFTS, ALBERTA JUBILEE AUDITORIUM, EDMONTON AND CALGARY. June 6th, 1963.	
Boileau-Ferguson Ltd., Beckett Elevators Ltd.	126,294.00*
Wagstaff Hoist Ltd.	93,878.00
Edmonton Elevator Service Ltd. and T. E. Bate Engineering Ltd. awarded	**84,840.00**
EXTENSION OF STEAM DISTRIBUTION SYSTEM AND RENOVATION OF EXISTING SYSTEMS AND CHASE, UNIVERSITY OF ALBERTA, EDMONTON. June 6th, 1963.	
Burns & Dutton Construction (1962) Ltd.	93,148.00
Stuart Olson Ltd.	76,787.00
Fraser & Rice Construction Ltd.	75,305.00
Poole Construction Co. Ltd.	75,269.00
Lockerbie & Hole Western Ltd.	73,608.00
Alta-West Construction Ltd.	71,529.00
Meccon Installations Ltd. awarded	**70,842.00**
SUPPLY AND INSTALLATION OF TILEWORK, DORMITORY #3, PROVINCIAL MENTAL INSTITUTE, OLIVER. June 20th, 1963.	
Reeson Tile & Terrazzo Ltd.	7,465.00
Columbia Tile & Terrazzo Ltd.	7,337.00
Bob Candido's Tile & Terrazzo Co. Ltd., awarded	**6,800.00**
LEASE OF PROPERTY, OLIVER AREA. Item #1 — The whole NW¼ of Section 7, Tp. 54, R. 23 W. 4th. July 11th, 1963.	
M. Schaffler	69.67
B. W. Chabaniuk	587.00
L. H. Vieweger	725.00
Lloyd E. Wilson	900.00
S. Groot & Sons	1,050.00
Robert C. Huff awarded	**1,180.00**

CONTRACT TENDERED FOR AND TENDERERS		AMOUNT BID
LEASE OF PROPERTY, OLIVER AREA. Item #2 — The whole NE¼ of Section 7, part of SE¼ of Section 7, Tp. 54, R. 23 W. 4th. July 11th, 1963.		
M. Schaffler		3.42
L. H. Vieweger		500.00
B. W. Chabaniuk		627.00
Violet Myers		1,025.00
S. Groot & Sons		1,050.00
R. C. Huff		1,260.00
Lloyd E. Wilson	awarded	**1,350.00**
LEASE OF PROPERTY, OLIVER AREA. Item #3 — Part SW¼ and part SE¼ of Section 8, Tp. 54, R. 23, W. 4th. July 11th, 1963.		
M. Schaffler		1.67
B. Hoffstette		290.00
L. H. Vieweger		375.00
B. W. Chabaniuk		407.00
Violet Myers		500.00
Visser Brothers		552.50
R. C. Huff	awarded	**630.00**
ERECTION OF HOME FOR THE AGED, LETHBRIDGE (SITE #2). July 25th, 1963.		
Hashman Construction Co. Ltd.		198,407.00
Kenwood Engineering Construction Ltd.		195,200.00
Poole Construction Co. Ltd.		195,187.00
Bird Construction Co. Ltd.	awarded	**194,185.00**
Modrzejewski Construction		179,300.00*
ERECTION OF A HOME FOR THE AGED, HANNA. July 25th, 1963.		
H. D. C. Construction Co. Ltd.		207,650.00
Bird Construction Co. Ltd.		206,829.00
Poole Construction Co. Ltd.		205,500.00
Alta-West Construction Ltd.	awarded	**194,273.00**
ERECTION OF A HOME FOR THE AGED, VULCAN. July 25th, 1963.		
Kenwood Engineering Construction Ltd.		205,800.00
Hashman Construction Co. Ltd.		205,314.00
Bird Construction Co. Ltd.		203,298.00
Poole Construction Co. Ltd.	awarded	**202,567.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
PAVING AND RELATED WORK, LANDS & FOREST YARD, EDSON. August 1st, 1963.	
Nadon Paving Ltd.	17,236.00
Everall Construction (Edmonton) Ltd. awarded	**14,780.00**
EXTENSION OF STORM SEWER AND WATER LINES, PROVINCIAL MENTAL INSTITUTE, OLIVER, August 1st, 1963.	
Horizontal Augering Services	29,351.50
N. S. Pawliuk & Sons Contracting Ltd.	26,053.50
G. C. McLeod & Co. Ltd.	25,153.25
Whissell Enterprises Ltd.	24,693.50
Economy Plumbing Ltd.	22,879.00
Sturgeon Valley Development Ltd.	21,823.50
L. F. Wilson Construction Ltd.	20,064.50
L. R. Bourassa Digging Excavating	19,928.81
Expert Ditchers Co. Ltd. awarded	**17,633.50**
ERECTION AND COMPLETION OF A COMFORT STATION, PROVINCIAL PARK, ELKWATER LAKE. August 1, 1963.	
D. and M. Construction Ltd.	20,820.00
Johnson Construction Co. Ltd. awarded	**18,828.00**
PAVING AND RELATED WORK, LANDS & FORESTS YARD, ROCKY MOUNTAIN HOUSE. August 15th, 1963.	
Nadon Paving Ltd.	19,907.60
Border Paving Ltd.	16,020.00
Everall Construction (Edmonton) Ltd. awarded	**11,321.50**
ERECTION AND COMPLETION OF A DEPARTMENT OF PUBLIC WORKS SHOPS BUILDING, LETHBRIDGE August 15th, 1963.	
Modrzejewski Construction Ltd.	42,830.00
Glen Little	42,400.00
Kenwood Engineering Construction Ltd.	41,700.00
Bird Construction Co. Ltd.	40,988.00
Oland Construction (1959) Ltd.	39,970.00
Chronik Construction Ltd.	39,410.00
Southern Alberta Construction Ltd.	38,576.00*
Getkate Masonry Construction Ltd. awarded	**38,438.00**
PAVING AND RELATED WORK, LANDS & FORESTS YARD, LAC LA BICHE. August 15th, 1963.	
Nadon Paving Ltd.	27,235.00
Everall Construction (Edmonton) Ltd. awarded	**10,960.00**

CONTRACT TENDERED FOR AND TENDERERS		**AMOUNT BID**
EXTENSION OF WATER AND SEWER LINES, UNIVERSITY OF ALBERTA, CALGARY. August 22nd, 1963.		
Expert Ditchers Co. Ltd.		109,857.73
Poole Construction Co. Ltd.		99,216.25
Burns & Dutton Construction (1962) Ltd.		97,438.25
Borger Construction Ltd.	awarded	**88,991.75**
PAVING AND RELATED WORK, UNIVERSITY OF ALBERTA, CALGARY. August 22nd, 1963.		
Standard Gravel & Surfacing of Canada Ltd.		69,859.00
M. & S. Paving Ltd.		69,731.00
Pioneer Paving Ltd.		68,818.70
Gallelli & Sons Co. Ltd.		66,735.50
Everall Construction (Calgary) Ltd.	awarded	**66,361.10**
ERECTION AND COMPLETION OF A WAREHOUSE BUILDING, LANDS & FORESTS YARD, WHITECOURT. August 29th, 1963.		
P. W. Graham & Sons (1963) Ltd.		35,133.00
Bird Construction Co. Ltd.		34,999.00
St. Laurent Construction Ltd.		34,235.00
Forest Construction Ltd.		33,472.00
W. J. Bennett Contractors Ltd.		32,955.00
Alta-West Construction Ltd.	awarded	**30,587.00**
ERECTION AND COMPLETION OF AN EIGHT STALL HIGHWAY MAINTENANCE GARAGE, GRANDE PRAIRIE. September 5th, 1963.		
Breck Construction Ltd.		90,000.00
St. Laurent Construction Ltd.		83,814.00
Buchanan Construction Engineering Co. Ltd.		83,483.00
Norman Nilsen Construction Ltd.		80,209.00
Fraser & Rice Construction Ltd.		75,948.00
D & B Building Contractors Ltd.		75,811.00
Van Vliet Construction Co. Ltd.	awarded	**72,933.00**
ERECTION AND COMPLETION OF A FOUR STALL HIGHWAY MAINTENANCE GARAGE, HIGH PRAIRIE. September 5th, 1963.		
Norman Nilsen Construction Ltd.		60,585.00
St. Laurent Construction Ltd.		58,340.00
A. W. Homme Ltd.		57,599.00
Van Vliet Construction Co. Ltd.	awarded	**53,954.00**

CONTRACT TENDERED FOR AND TENDERERS		AMOUNT BID

ERECTION AND COMPLETION OF A FOUR STALL HIGHWAY MAINTENANCE GARAGE, CONSORT. September 5th, 1963.

Poole Construction Co. Ltd.		54,841.00
Buchanan Construction & Engineering Co. Ltd.		53,945.00
Peter Kristensen Construction Co. Ltd.		53,350.00
A. W. Homme Ltd.		52,614.00
Bakgaard Construction Co. Ltd.		50,390.00
Byrnes & Hall Construction Ltd.		49,949.00
Parkins Construction Ltd.	awarded	**49,800.00**

EXTENSION OF WATER LINE AND STORM SEWER, PROVINCIAL AUXILIARY HOSPITAL, CLARESHOLM. September 19th, 1963.

Burns & Dutton Construction (1962) Ltd.		26,210.00
Beckley Campbell Construction Co. Ltd.		25,856.75
Lewis & Wilson Excavating Contractors Ltd.		22,589.40
Craig's Welding and Construction	awarded	**21,811.15**

CONSTRUCTION OF WATER & SEWER LINES AND RELATED WORK, WELFARE CENTRE, GUNN. September 19th, 1963.

Whissell Enterprises Ltd.		62,277.50
G. C. McLeod & Co. Ltd.		54,712.59
Expert Ditchers Co. Ltd.	awarded	**54,458.05**

REMOVAL OR DEMOLITION AND REMOVAL OF ALL BUILDINGS AS FOLLOWS: ONE — ONE STOREY MASONRY BUILDING PREVIOUSLY OCCUPIED BY TREASURY BRANCH AND LIQUOR STORE, 82nd AVENUE & 104th STREET, EDMONTON. September 19th, 1963.

		Gov't to pay:
R. J. Clarke		18,750.00
E. Lobe Contracting Ltd.		11,650.00
John Paul Forest, J. A. Moses		3,456.00
J. B. McDonald & Son, Contractors		2,655.00
Adby Demolition Co. Ltd.	awarded	**1,360.00**

CONTRACT TENDERED FOR AND TENDERERS	**AMOUNT BID**
ERECTION OF A FOUR STALL GARAGE, HIGH RIVER. October 10th, 1963.	
A. W. Homme Ltd.	53,850.00
Bird Construction Co. Ltd.	53,102.00
Bayker Construction Ltd.	52,770.00
Befus Construction Ltd.	52,230.00
Poole Construction Co. Ltd.	51,878.00
Commonwealth Construction Co. Ltd.	50,850.00
I. W. Campbell Construction Ltd.	49,648.00
Bakgaard Construction Co. Ltd.	48,730.00
David E. Smith Construction Ltd.	48,500.00
Jason Construction (E. Hansen) awarded	**43,355.00**
PAVING AND RELATED WORK, UNIVERSITY OF ALBERTA CAMPUS, EDMONTON. October 17th, 1963.	
O'Hanlon Paving Ltd.	19,885.60
W. C. Wells Construction Co. Ltd.	19,843.80
Alberta Concrete Products Ltd.	18,135.85
Everall Construction (Edmonton) Ltd. awarded	**18,102.00**
ERECTION OF TWO SIX-MAN RESIDENCES, WELFARE CENTRE, GUNN. October 17th, 1963.	
H. D. C. Construction Co. Ltd.	36,000.00
P. W. Graham & Sons (1963) Ltd.	34,398.00
Poole Construction Co. Ltd.	32,412.00
Buchanan Construction & Engineering Co. Ltd.	31,995.00
Byrnes & Hall Construction Ltd.	31,990.00
Camwil Construction Ltd.	31,900.00
Alta-West Construction Ltd.	30,714.00
Rosen Construction Co. Ltd. awarded	**30,669.00**
ERECTION OF A TREASURY BRANCH BUILDING, GRANUM. October 24th, 1963.	
Tom's Construction	25,812.00
Kenwood Engineering Construction Ltd.	24,200.00
Getkate Masonry Construction Ltd.	23,279.00
Arias (Spanish) Construction Ltd.	21,821.00
Bakgaard Construction Co. Ltd.	21,600.00
Norby Builders & Contractors awarded	**21,388.00**
ERECTION OF A TREASURY BRANCH BUILDING, CALGARY. October 31st, 1963.	
Poole Construction Co. Ltd.	78,700.00
Walden Construction Ltd.	76,779.00
Hornstrom Brothers Construction Ltd.	75,889.00
Bird Construction Co. Ltd.	73,236.00*
F. A. Wilson & Sons Ltd.	70,600.00
Bayker Construction Ltd.	68,850.00
Bakgaard Construction Co. Ltd. awarded	**67,860.00**

CONTRACT TENDERED FOR AND TENDERERS		**AMOUNT BID**
ERECTION OF A CIVIL ENGINEERING BUILDING, UNIVERSITY OF ALBERTA, CALGARY. October 31st, 1963.		
Commonwealth Construction Co. Ltd.		986,395.00
Poole Construction Co. Ltd.		976,871.00
Universal Construction Co. Ltd.		955,817.00
Bennett & White Alberta (1963) Ltd.		926,698.00
Burns & Dutton Construction (1962) Ltd.	awarded	**902,318.00**
ADDITION TO THE CORE STORAGE BUILDING, OIL AND GAS CONSERVATION BOARD, CALGARY. October 31st, 1963.		
Walden Construction Ltd.		80,360.00
Hornstrom Brothers Construction Ltd.		79,989.00
David E. Smith Construction Ltd.		79,732.00
Poole Construction Co. Ltd.		77,647.00
Bennett & White Alberta (1963) Ltd.		76,983.00
Bird Construction Co. Ltd.		76,280.00
Bakgaard Construction Co. Ltd.		75,300.00
Befus Construction Ltd.		74,990.00
Bayker Construction Ltd.	awarded	**74,810.00**
ERECTION OF COLD STORAGE WAREHOUSE, TREE NURSERY, DEPT. OF AGRICULTURE, OLIVER. November 7th, 1963.		
Burns & Dutton Construction (1962) Ltd.		34,600.00
Van Vliet Construction Co. Ltd.		33,179.00
Buchanan Construction & Engineering Co. Ltd.		33,124.00
Universal Construction Co. Ltd.		31,677.00
Parkins Construction Ltd.		31,000.00
P. W. Graham & Sons (1963) Ltd.		30,716.00
A. W. Homme Ltd.		30,452.00
Norman Nilsen Construction Ltd.		29,797.00
Alta-West Construction Ltd.		29,765.00
Forest Construction Ltd.		29,737.00
Harsim Construction Ltd.		29,600.00
Bakgaard Construction Co. Ltd.		29,487.00
Poole Construction Co. Ltd.		28,998.00
D. S. Greenfield Construction Ltd.		28,640.00
Byrnes & Hall Construction Ltd.	awarded	**27,161.00**

CONTRACT TENDERED FOR AND TENDERERS	**AMOUNT BID**
ERECTION OF A NEW INFIRMARY BUILDING, PROVINCIAL TRAINING SCHOOL, RED DEER. November 21st, 1963.	
Bakgaard Construction Co. Ltd.	526,600.00
Bennett & White Alberta (1963) Ltd.	548,778.00
Burns & Dutton Construction (1962) Ltd.	548,585.00
McNamara Construction Western Ltd.	537,000.00
Buchanan Construction & Engineering Co. Ltd.	532,636.00
Poole Construction Co. Ltd.	528,540.00
P. W. Graham & Sons (1963) Ltd.	527,536.00
Harsim Construction Ltd.	522,000.00
Oland Construction (1959) Ltd.	520,000.00
Bird Construction Co. Ltd. awarded	**508,299.00**
ERECTION OF A TREASURY BRANCH BUILDING, 82nd AVENUE & 104th STREET, EDMONTON. November 21st, 1963.	
Burns & Dutton Construction (1962) Ltd.	127,993.00
Briden Construction Ltd.	126,190.00
R. Vollan Ltd.	125,449.00
Alta-West Construction Ltd.	125,257.00
A. V. Carlson Construction Ltd.	123,782.00
Parkins Construction Ltd.	123,500.00
Camwil Construction Ltd.	121,500.00
Norman Nilsen Construction Ltd.	120,666.00
Poole Construction Co. Ltd.	120,275.00
P. W. Graham & Sons (1963) Ltd.	119,624.00
Forest Construction Ltd.	117,700.00
Zenith Construction Ltd. awarded	**108,650.00**
ERECTION OF A HOME FOR THE AGED, BELVEDERE SITE #2, EDMONTON. December 5th, 1963.	
Burns & Dutton Construction (1962) Ltd.	459,590.00
Buchanan Construction & Engineering Co. Ltd.	459,584.00
McNamara Construction Western Ltd.	449,500.00
P. W. Graham & Sons (1963) Ltd.	449,360.00*
Van Vliet Construction Co. Ltd.	446,862.00
Bennett & White Alberta (1963) Ltd.	445,604.00
Alta-West Construction Ltd.	443,315.00
Poole Construction Co. Ltd.	435,571.00
Harsim Construction Ltd. awarded	**435,500.00**

CONTRACT TENDERED FOR AND TENDERERS	**AMOUNT BID**
ERECTION OF A SERVICES BUILDING, PROVINCIAL TRAINING SCHOOL, RED DEER. December 5th, 1963.	
Buchanan Construction & Engineering Ltd.	802,694.00
The Foundation Co. of Canada Ltd.	795,950.00
Oland Construction (1959) Ltd.	790,000.00
McNamara Construction Western Ltd.	783,400.00
Burns & Dutton Construction (1962) Ltd.	768,850.00
P. W. Graham & Sons (1963) Ltd.	767,298.00*
Bennett & White Alberta (1963) Ltd.	764,824.00
Poole Construction Co. Ltd.	762,966.00
Bakgaard Construction Co. Ltd.	760,000.00
Bird Construction Co. Ltd. awarded	**751,777.00**
ERECTION OF TWO DORMITORIES, #7 & #8, DEERHOME INSTITUTION, RED DEER. January 9th, 1964.	
Commonwealth Construction Co. Ltd.	1,219,450.00
Alta-West Construction Ltd.	1,209,890.00
P. W. Graham & Sons (1963) Ltd.	1,191,409.00
Oland Construction (1959) Ltd.	1,175,000.00
Forest Construction Ltd.	1,173,996.00
Poole Construction Co. Ltd.	1,173,985.00
McNamara Construction Western Ltd.	1,158,812.00
Bird Construction Co. Ltd.	1,144,111.00
Burns & Dutton Construction (1962) Ltd. awarded	**1,108,700.00**
REMOVAL OR DEMOLITION AND REMOVAL OF ONE THREE STOREY FRAME BUILDING WITH BASEMENT LOCATED ON THE SITE OF THE PROVINCIAL AUXILIARY HOSPITAL, CLARESHOLM. January 16th, 1964.	
	Gov't to pay:
McLean Service & Construction Ltd.	12,276.00
E. Lobe Contracting Ltd.	11,480.00
Amalgamated Contractors	9,760.00
A. Bickman	6,985.00
Frissell Building Movers Ltd.	6,449.20
Adby Demolition Co. Ltd. awarded	**3,350.00**

CONTRACT TENDERED FOR AND TENDERERS		**AMOUNT BID**
ERECTION OF BIOLOGICAL SCIENCES COMPLEX, UNIVERSITY OF ALBERTA, CALGARY. January 30th, 1964.		
Poole Construction Co. Ltd.	A.	1,736,331.00
	B.	1,796,331.00
Oland Construction (1959) Ltd.	A.	1,669,000.00
	B.	1,709,000.00
Bennett & White Alberta (1963) Ltd.	A.	1,675,864.00
	B.	1,740,864.00
McNamara Construction Western Ltd.	A.	1,655,597.00
	B.	1,645,597.00
Burns & Dutton Construction (1962) Ltd.	A.	1,626,870.00
	B.	1,666,870.00
Bird Construction Co. Ltd.	A.	1,610,400.00
	B.	1,636,000.00
The Foundation Co. of Canada Ltd.	A.	1,589,985.00
	awarded B.	**1,609,299.00**
SUPPLY AND INSTALLATION OF ONE PASSENGER ELEVATOR AND ONE FREIGHT ELEVATOR, BIOLOGICAL SCIENCES COMPLEX, UNIVERSITY OF ALBERTA, CALGARY. February 6th, 1964.		
T. E. Bate Engineering Ltd.		78,460.00
Otis Elevator Co. Ltd.		68,560.00
Turnbull Elevator of Canada Ltd.	awarded	**65,270.00**
ERECTION AND COMPLETION OF AN ADDITION TO THE PROVINCIAL LABORATORY OF PUBLIC HEALTH, EDMONTON. February 20th, 1964.		
Prism Construction Co. Ltd.		677,573.00
Platten Bros. Construction Ltd.		672,597.00
Stuart Olson Ltd.		659,773.00
Buchanan Construction & Engineering Co. Ltd.		654,456.00
McNamara Construction Western Ltd.		646,500.00
Burns & Dutton Construction (1962) Ltd.		637,200.00
Forest Construction Ltd.		635,000.00
Bennett & White Alberta (1963) Ltd.		630,850.00
Poole Construction Co. Ltd.	awarded	**629,962.00**

CONTRACT TENDERED FOR AND TENDERERS		AMOUNT BID
INSTALLATION OF WATER LINES AND RELATED WORK, CYPRESS HILLS PROVINCIAL PARK ELKWATER LAKE, February 20th, 1964.		
G. C. McLeod & Co. Ltd.		36,434.40
Medicine Hat Contractors Ltd.		35,673.50
Craig's Welding & Construction		31,523.77
McLean Service & Construction Ltd.	awarded	**29,033.14**
ERECTION OF THE PROVINCIAL BUILDING, HIGH PRAIRIE, February 27th, 1964.		
Bennett & White Alberta (1963) Ltd.		221,122.00
McNamara Construction Western Ltd.		218,000.00
Briden Construction Ltd.		216,715.00
St. Laurent Construction Ltd.		214,634.00
Poole Construction Co. Ltd.		214,087.00
McRae & Associates Construction Ltd.		212,000.00
Buchanan Construction & Engineering Co. Ltd.		211,154.00
Van Vliet Construction Co. Ltd.		207,114.00
Camwil Construction Ltd.		207,047.00
P. W. Graham & Sons (1963) Ltd.		206,843.00
Forest Construction Ltd.		202,681.00
W. J. Bennett Contractors Ltd.	awarded	**202,445.00**
ADDITION TO THE NUCLEAR RESEARCH CENTRE, UNIVERSITY OF ALBERTA, EDMONTON, February 27th, 1964.		
McNamara Construction Western Ltd.		169,000.00
Norman Nilsen Construction Ltd.		168,682.00
Bennett & White Alberta (1963) Ltd.		168,578.00
Poole Construction Co. Ltd.		168,476.00
Stuart Olson Ltd.		166,900.00
Platten Bros. Construction Ltd.		164,758.00
Prism Construction Co. Ltd.	awarded	**156,900.00**

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
ERECTION OF THE GYMNASIUM BUILDING AND MECHANICS BUILDING, AGRICULTURAL COLLEGE, FAIRVIEW, March 5th, 1964.	
Bird Construction Co. Ltd.	311,291.00
Prism Construction Co. Ltd.	298,283.00
Burns & Dutton Construction (1962) Ltd.	294,800.00
Bennett & White Alberta (1963) Ltd.	294,787.00
Fraser & Rice Construction Ltd.	293,485.00
St. Laurent Construction Ltd.	292,643.00
Poole Construction Co. Ltd.	289,370.00
Forest Construction Ltd.	288,388.00
P. W. Graham & Sons (1963) Ltd.	288,264.00
Alta-West Construction Ltd.	286,882.00
Buchanan Construction & Engineering Co. Ltd.	285,015.00
McNamara Construction Western Ltd.	284,000.00
W. J. Bennett Contractors Ltd. awarded	**280,585.00**
EXTENSION OF WATER AND SEWER LINES, UNIVERSITY OF ALBERTA, CALGARY. March 12th, 1964.	
Poole Engineering (1958) Ltd.	35,244.75
Expert Ditchers Co. Ltd.	34,058.25
Burns & Dutton Construction (1962) Ltd.	31,218.50
Borger Construction Ltd. awarded	**26,392.75**
ERECTION OF THE SCHOOL OF HOUSEHOLD ECONOMICS, UNIVERSITY OF ALBERTA, EDMONTON. March 19th, 1964.	
Stuart Olson Ltd.	946,827.00
Alta-West Construction Ltd.	919,557.00
Bird Construction Co. Ltd.	916,482.00
Poole Construction Co. Ltd.	916,142.00
Foundation Co. of Canada Ltd.	915,473.00
Christensen & Macdonald Construction Ltd.	906,992.00
McNamara Construction Western Ltd.	899,734.00
Forest Construction Ltd.	891,950.00
Burns & Dutton Construction (1962) Ltd.	884,166.00
Bennett & White Alberta (1963) Ltd. awarded	**872,049.00**

TENDERS CALLED ON BEHALF OF THE ALBERTA LIQUOR CONTROL BOARD

CONTRACT TENDERED FOR AND TENDERERS	AMOUNT BID
PARKING LOT CONSTRUCTION AND RELATED WORK, A.L.C.B. WAREHOUSE, EDMONTON. April 11th, 1963.	
W. C. Wells Construction Co. Ltd.	32,659.25
Arthur A. Voice Construction Co. Ltd.	32,008.00
Everall Construction Ltd.	31,088.75
Nadon Paving Ltd.	29,737.05
O. K. Construction Ltd. awarded	**29,607.25**
ERECTION OF A LIQUOR STORE, GRIMSHAW. August 15th, 1963.	
Bird Construction Co. Ltd.	46,954.00
W. J. Bennett Contractors Ltd.	44,990.00
Norman Nilsen Construction Ltd.	44,814.00
St. Laurent Construction Ltd.	43,539.00
Prism Construction Co. Ltd. awarded	**43,033.00**
ERECTION OF A LIQUOR STORE, STRATHMORE. October 24th, 1963.	
Befus Construction Ltd.	31,398.00
Celtie Construction Ltd.	30,765.00
Bird Construction Co. Ltd.	29,450.00
Peter Kristensen Construction Co. Ltd.	29,408.00*
Poole Construction Co. Ltd.	29,400.00
David E. Smith Construction Ltd.	28,719.00
D. A. Dowling Construction Ltd.	28,074.00
Bennett & White Alberta (1963) Ltd.	26,813.00
Bayker Construction Ltd.	26,720.00
Bakgaard Construction Co. Ltd.	26,700.00
Cascade Builders Ltd. awarded	**26,514.00**
ERECTION OF A LIQUOR STORE, WHITECOURT. November 28th, 1963.	
Ben E. Schaning	45,950.00
Lance Construction Ltd.	45,870.00
Camwil Construction Ltd.	44,325.00
Alta-West Construction Ltd.	43,740.00
McRae & Associates Construction Ltd.	42,404.00
P. W. Graham & Sons (1963) Ltd.	42,153.00
Poole Construction Co. Ltd.	40,950.00
Forest Construction Ltd. awarded	**40,148.00**

CONTRACT TENDERED FOR AND TENDERERS		AMOUNT BID
SUPPLY AND INSTALLATION OF ACOUSTIC VENTILATING CEILING SUSPENSION SYSTEM, BEAVER HOUSE, 10160 - 103rd STREET, EDMONTON. February 20th, 1964.		
Dominion Sound Equipments Ltd.		6,900.00
Gypsum Drywall Industries Ltd.		6,200.00
F. Drexel Co. Ltd.	awarded	**5,600.00**
ERECTION OF A LIQUOR STORE, ATHABASCA. March 5th, 1964.		
Camwil Construction Ltd.		18,200.00
Lance Construction Ltd.		17,671.00
MacCalder Construction Co. Ltd.		17,500.00
Rosen Construction Co. Ltd.		16,725.00
R. V. Coambs Construction Ltd.		16,329.00
Dennis Jones Construction Ltd.		15,477.00
Forest Construction Ltd.		15,300.00
R. Holzer Construction	awarded	**15,052.00**
ERECTION OF A LIQUOR STORE, LEDUC March 5th, 1964.		
Lance Construction Ltd.		18,381.00
Rosen Construction Co. Ltd.		18,103.00
MacCalder Construction Co. Ltd.		17,900.00
Camwil Construction Ltd.		17,900.00
Dennis Jones Construction Ltd.		16,800.00
R. V. Coambs Construction Ltd.		16,499.00
Forest Construction Ltd.		16,254.00
Ness Construction Ltd.		16,222.00
D. S. Greenfield Construction Ltd.		15,790.00
Briden Construction Ltd.		15,545.00
Noral Construction Ltd.		15,469.00
R. Holzer Construction		15,027.00
C. Burrows Construction Ltd.	awarded	**14,433.00**

GRANTS PAYABLE UNDER THE PUBLIC WORKS ACT, CHAPTER 270, SECTION 19(1), TOWARDS THE COST OF CONSTRUCTION OF SWIMMING POOLS OR THE IMPROVEMENTS THEREOF

1. A grant of $7,000.00 or one third of the actual cost of construction, whichever is the lesser amount, is payable towards the cost of construction of a swimming pool.

2. A grant of $7,000.00 is payable towards the cost of improvement to an already existing swimming pool for which no grant has been already paid, or one third of the actual cost of such improvements, whichever is the lesser amount.

3. Grants as set forth above are payable to Municipalities with a population of not more than 10,000.

4. Approval by the Architects of the Department of Public Works must be obtained for the plans of the pool and drainage arrangements.

5. Approval of the plans of the pool as to sanitary arrangements must be obtained from the Sanitary Engineer of the Department of Health.

6. The grant will be computed from an audited statement of expenditure which must be submitted to the Department of Public Works.

7. The title of the swimming pool must be held by the Municipality, village, town or city.

During the fiscal year 1963-64 a total of $14,000.00 was paid to the following as "swimming pool grants":

Town of Drayton Valley

Town of High River

THE CROWN PROPERTY MUNICIPAL GRANTS ACT

Under "The Crown Property Municipal Grants Act", being Chapter 20 of the Statutes of Alberta, 1961, and amendments and regulations thereto, grants are paid on all Crown owned properties other than the following:

(a) real property forming part of an undertaking in respect of the conservation, irrigation, reclamation, rehabilitation or reforestation of land;

(b) Any park, historical site, monument or museum;

(c) except when otherwise prescribed by the Provincial Treasurer, real property leased to or occupied by a person from whom the municipality may, by reason of his interest in the property, levy and collect a municipal tax;

(d) real property used for or in connection with academic, trade, forestry or agricultural schools, colleges or universities;

(e) real property used for or in connection with hospitals and mental institutions;

(f) (deleted by amendment);

(g) real property comprising streets, lanes, roadways or road allowances;

(h) real property that is not used or actively occupied by the Crown and that is not occupied by a person under a lease, licence, permit or agreement for sale;

(i) real property owned by the Alberta Liquor Control Board, the Alberta Government Telephones Commission or the Workmen's Compensation Board;

(j) any specific property or class of real property exempted from the provisions of the Act by the Lieutenant Governor in Council.

In addition to this, grants are paid on any building which would otherwise be excluded but which are serviced by local utilities services, such as forestry ranger buildings.

In the case of grazing leases on Crown lands, a portion of the lease fee is returned to the Municipality and such payments made are not included in the figures shown as payments made under "The Crown Property Municipal Grants Act".

GRANTS IN LIEU OF TAXES

During the fiscal year 1963-64, a total of $1,461,790.64 as grants in lieu of taxes for Government buildings was paid to the following Cities, Towns, Villages, Counties and Municipal Districts throughout Alberta:

CITY OF:

Calgary	$270,782.82
Camrose	7,687.80
Drumheller	10,344.88
Edmonton	748,683.60
Grande Prairie	23,516.60
Lethbridge	30,503.25
Medicine Hat	5,893.90
Red Deer	19,923.36
Wetaskiwin	6,584.16

TOWN OF:

Athabasca	1,584.36
Barrhead	6,035.12
Black Diamond	178.50
Blairmore	1,397.55
Bonnyville	261.60
Bowness	307.44
Brooks	2,183.35
Cardston	2,546.10
Castor	446.58
Cold Lake	429.04
Coleman	349.68
Coronation	339.60
Devon	1,216.05
Didsbury	323.40
Drayton Valley	2,572.00
Edson	12,951.40
Fairview	1,165.60
Falher	475.41
Fort Macleod	3,864.81
Fort Saskatchewan	40,970.70
Grimshaw	5,147.35
Hanna	9,264.60
High Prairie	1,153.10
Hinton	445.92
Innisfail	1,036.26
Jasper Place	1,659.42
Lac La Biche	7,189.98
Lacombe	2,226.62
Manning	679.80
Mayerthorpe	4,166.64
McLennan	185.26
McMurray	676.50
Nanton	209.19
Olds	2,183.00
Peace River	18,726.48
Ponoka	945.18
Redwater	1,177.00
Rocky Mountain House	2,899.68
Stettler	2,663.64
Stony Plain	260.52
St. Paul	3,829.25

TOWN OF:

Swan Hills	$ 621.40
Three Hills	276.48
Two Hills	1,315.05
Valleyview	2,516.43
Vegreville	4,109.56
Vermilion	2,154.53
Viking	397.11
Vulcan	404.50
Wainwright	1,064.19
Westlock	1,083.16
Whitecourt	1,662.03

VILLAGE OF:

Andrew	336.05
Boyle	22.80
Chipman	9.60
Cochrane	197.20
Coutts	240.00
Czar	349.44
Duchess	376.80
Elnora	174.30
Evansburg	182.28
Hines Creek	520.30
Killam	585.51
Rycroft	1,128.40
Ryley	378.78
Slave Lake	1,978.65

COUNTY OF:

Forty Mile #8	95.45
Lacombe #14	586.33
Newell	2,792.92
Ponoka	8,237.22
Red Deer #23	58,596.80
St. Paul	54.67
Smoky Lake	112.18
Stettler	86.14
Strathcona	4,628.68
Sturgeon	6,321.42
Warner #5	692.42
Wheatland #17	191.82

MUNICIPAL DISTRICT OF:

Eagle #81	32.85
Fairview	1,127.95
Foothills	769.28
Lac Ste. Anne	5,990.59
Leduc	1,740.40
Lethbridge	31,099.18
Rockyview #44	38,842.30
Stony Plain	631.30
Westlock	142.88
Willow Creek	4,686.42

Improvement District No. 946 — Canmore	$ 482.22
Improvement District No. 96 — Entrance	843.62
Improvement District No. 65 — Raven River	677.00

SUMMARY OF EXPENDITURES BY THE DEPARTMENT OF PUBLIC WORKS FOR THE FISCAL YEAR ENDING MARCH 31, 1964

Appropriation Number	Description	Amount	Total
	ADMINISTRATION:		
2601	Ministers Office	$ 21,105.15	$
2602	General Administration	307,950.76	
2606	Public Buildings Staff	868,075.25	
2608	Mechanical Branch	48,305.35	1,245,436.51
	MAINTENANCE:		
2610	Legislative & Public Buildings—Maintenance	6,167,042.90	
2612	Public Institutions—Maintenance	1,806,865.52	
2614	High Pressure Power Plants	2,002,671.01	
2615	Lower Pressure Power Plants	497,239.15	
2620	Government Automobile Service	74,223.68	10,548,042.26
	GRANTS:		
2624	Grants to Municipalities for Swimming Pools	14,000.00	
2625	Grants for Construction of Police Buildings	312,727.29	
2626	Grants to Municipalities in Lieu of Taxes	1,461,790.64	1,788,517.93
	CAPITAL:		
2681	Administrative & Judicial Buildings—Furnishings and Equipment	414,652.65	
2682	Public Buildings—Sites and Construction	13,155,337.37	
2683	Specialized Institutional and Departmental Buildings: Furnishings and Equipment	6,843,585.24	
2684	Power Plants Construction	131,321.85	20,544,897.11
			$34,126,893.81

PROGRAMME OF CONSTRUCTION

Department of Education

Southern Alberta Institute of Technology, Calgary

Construction of a gymnasium-auditorium and student centre, which commenced in October, 1962, was completed in July, 1963.

The main structure, which is the gymnasium, is so designed that it can be used as an auditorium for drama and other student functions. A very attractive lobby makes a pleasant approach to the gymnasium proper as well as crush space for intermissions. A one-storey wing provides space for student lounges.

The main structure consists of pre-cast concrete columns with castelled steel beams spanning the main gymnasium area. The exterior wall treatment is a combination of face brick and exposed concrete block. Interior finishes are exposed concrete block, terrazzo, vinyl asbestos tile floor coverings. The ceiling in the gymnasium is exposed with acoustic ceilings in the offices and recreation areas.

Hot water wall hung radiation system supplies the heating for the building. The hot water is generated by one 150 horsepower packaged boiler.

The site was developed and landscaped.

Department of Health

Foothills Provincial General Hospital, Calgary

Work continued on the main General Hospital Building this year. The General Hospital has 13 floors and is designed in the form of an inverted "T" to provide the shortest horizontal distances from a centrally located elevator core. The building is built into a hillside to facilitate direct access to the lower service floor which is two floors below the main entrance level. Concrete piles have been utilized to carry the weight of the building to the load bearing strata some 30 to 40 feet below basement level. A structural steel framework is to support the all-masonry building. There are nine elevators located in the central elevator core with provision for the tenth, should it be required. The various departments and functions are distributed as follows:

Basement:

Pharmacy, Central Supplies, Central Receiving and Stores, Maintenance Shops, Morgue, Laundry Storage and Mechanical space.

Ground Floor:

Auditorium (seating for 300), Staff Cafeteria, Food Services, Personnel Office, Purchasing, Staff Lockers, tunnel connections to Nurses' Residence and Chronic Hospital.

First Floor:

Administration, Main Entrance, Medical Records, Doctors' Lounges, Medical Library, Referal Clinic, Admitting, Snack Bar, News-stand, Emergency Department.

Second Floor:

Phychiatric Wards, Occupational Therapy.

Third Floor:

Rehabilitation, Physio-therapy.

Fourth Floor:

Genito Urinary and Orthopaedic wards, X-ray.

Fifth Floor:

Obstetric wards, Nurseries and Case Rooms.

Sixth Floor:

Medical wards, Clinical Laboratories.

Seventh Floor:

Surgical wards, Operating suites.

Eighth Floor:

Gynaecology and Surgical Wards, Doctors' Lockers, Interns' Residence.

Ninth Floor:

Neuro-Surgical and Eye, Ear, Nose and Throat wards, Medical Research.

Tenth Floor:

Medical wards, Sun Decks.

Eleventh Floor:

Pediatric wards, Isolation wards.

The wards have 38 beds in each of the two wings per floor with intensive care beds in the respective wards adjacent to the nurses' stations. The clinical areas are related to the type of medical care provided on the particular floor. The various departments will have available all phases of treatment and care within the scope of a general hospital.

The following services are brought via a large service tunnel from the main power plant to the Clinical Wing mechanical room: One 18 inch low pressure line; two 8 inch high pressure lines, one condensate line; two 14 inch chilled water lines. The Clinical Wing mechanical room forms the starting point of the distribution system. From here the services branch off to the operating rooms, the laundry mechanical areas, and the north and south Nursing Wing mechanical areas.

The air conditioning system for the north and south Nursing Wings and the Clinical Wing consists mainly of:

(a) Three separate induction systems supplying heating and cooling as required to the periphery wall areas by means of room induction units, and

(b) Three separate dual duct systems complete with large centrifugal fan units. Each dual duct system is a full fresh air system. Chilled water and low pressure steam are used to maintain the hot and cold ducts.

A separate air conditioning system located in the Clinical Wing Penthouse services the operating room floor. Separate ventilating systems are used to service the following areas: Laundry, Kitchen, Morgue, Shop, Auditorium and Foyer Rooms.

The heating system for the Auditorium and the additional heating for the north and south Nursing Wings is forced hot water and wall fin radiation. The cold generation plant, located in the power plant building, consists of two 750 ton nominal absorption units. These are supplied with exhaust steam from the turbines. There is a 100 ton stand-by centrifugal compressor.

The fire protection system consists of a wet stand pipe system complete with fire hose cabinets, one electrical driven and one diesel driven fire pump. A complete wet sprinkler system covers all below grade windowless areas. Special carbon dioxide flooding systems are required for the diesel-electric set room on the inflammable storage areas.

The ambulance entrance, or the staff entrance, the main hospital entrance and the corresponding sidewalks all have an intricate snow melting system.

In order to provide power at all times to the most vital parts of the hospital, four separate sources of power are employed to supply the four basic divisions of the load. These are:

1. The City of Calgary power system—to supply the normal load.

2. The Hospital Power Plant—to supply the preferred load.
3. A Diesel Electric set in the Hospital—to supply alternating current emergency load.
4. A Battery Band in the Hospital—to supply the direct current emergency load.

The City of Calgary power system is brought into the Hospital power plant and the power plant is then connected by underground cables to the hospital at a voltage of 13,200 volts. Primary power distribution within the hospital is provided from a high voltage switchboard to four different sub-stations at a voltage of 13,200 volts. Low voltage distribution is at 120/208 volts for lighting and appliances while the 4,000 horsepower for motors is supplied at 575 volts.

A distinct feature of prime importance is provided by having all the main circuit breakers within the hospital controlled remotely by the operator on duty at the power plant. In case of a City power failure, the operator can thus effectively keep the turbines loaded to the maximum and give greater coverage of power within the hospital. If both the City power and the power plant turbines fail, a diesel set in the hospital itself provides power to the operating rooms, case rooms, emergency corridor lights and an elevator, etc. If the diesel set fails, a battery bank provides power to the operating and case rooms. All the switchboards and sub-stations are fully metered with recording type ammeters to provide a constant check and record of power demands at different parts of the hospital.

Fluorescent lighting has been used throughout the building except in the patients' rooms, washrooms and machine rooms. There incandescent lighting has been used. Duplex receptacles have been located throughout the building. In corridors 30 amp. cleaning outlets are provided and in the nursing wings 60 amp. X-ray outlets are installed in the corridors. In office areas an underfloor duct system has been installed so that 120 volt floor outlets may be located to suit the office layout. Motor control centers have been installed in all machine rooms to provide centralized control.

An automatic presence register system for Doctors has been provided with register station in the staff entrances and an annunciator in the telephone operators' room. The system has a total capacity of registering 300 Doctors and an ultimate capacity of 400 Doctors. An audio-visual nurses call system, complete with multi-channel program and television remote control facilities, has been installed. This system provides complete communication between the patient and the nurse. A multi-channel program and paging system has been provided for with paging speakers throughout all corridors and program speakers in all lounges, Cafeteria and operating rooms. An electronic intercomm system has been installed in the various departments providing complete communication between all key personnel.

Synchronous wired clocks have been installed and connected to the master clock in the power plant and interval timers are provided for in all operating rooms and case rooms.

A non-code, zone annunciator, pre-signal, supervised fire alarm system with alarm stations throughout the building has been provided. This system is tied into the City of Calgary Fire Department.

Provisions have been made for future installation of a closed circuit television system and a television antenna system. A complete lightning protection system has been installed on the roof. An empty conduit system has been installed for installation of telephones in all key locations. Also provisions have been made for installation of telephones in all private wards. Complete wiring facilities have been provided for all owner supplied equipment such as in the kitchen, laundry and shop areas.

Pineview Home, Edmonton

Construction of the Pineview Home at 8770 - 165th Street, Edmonton, a home for unwed mothers, which started October, 1962, was completed in June, 1963. It is built in the vicinity of the proposed new Misericordia Hospital in Jasper Place and has accommodation for 38 girls. The building is "H" shaped and is two stories high. The basement houses the main kitchen and food storage, guest and staff dining rooms, recreation room, laundry and sewing rooms, board room and conference room, nurses' suite and lounges. The main floor houses the maintenance and administration and visiting areas, staff quarters, emergency and examination suites, doctors' and nurses' rooms, etc. Single and double bedrooms with adjoining bathrooms are provided.

Construction is of concrete foundation and frame with a brick veneer. The main entrance has a glazed screen and natural stone feature wall. The interior is plastered and the floors are vinyl asbestos or rubber tile. The entire building has the pleasant atmosphere of "a home away from home".

The mechanical system incorporates two roof-mounted direct fired industrial gas furnaces supplying hot air via ductwork throughout the building. The ventilation system is based on a two zone area, one large supply fan supplying a proportional amount of fresh air and return air to each zone. Provision has been made for supplying future cooling equipment. The site and grounds were developed and a parking lot was constructed.

Provincial Laboratory of Public Health, Edmonton

Construction of an addition to the Provincial Laboratory of Public Health was started on March 15th, 1964. The building is a reinforced concrete framed structure with hollow clay tile interior partitions and back-up walls to exterior face brick veneers and wood framed interior partitions to other locations. Fenestration consists of sealed glazing units in wood sash and frames having fixed and opening lights which match the existing part of the building. Interior finishes have terrazzo and vinyl asbestos floors, plaster walls, suspended acoustic tile and plaster ceilings. The building provides for laboratories, sterilizer rooms, lecture rooms, office space, storage rooms, photographic rooms, culture rooms animal rooms, refrigerator rooms and staff rooms. The Laboratory has a complete air conditioning system maintaining comfortable room conditions all the year around. The air is being supplied by one large centrifugal fan unit, located in the penthouse, delivering a total quantity of air of 64,085 cubic feet per minute to the various areas by a high velocity dual duct system. The cooling requirements for the building are fulfilled by one 100 ton and one 60 ton reciprocating chiller controlled in four steps according to demand. The chilled water obtained from the chillers is circulated through the water cooling coils in the fan section. The building periphery is heated by wall hung water radiation. The hot water for the system is generated by a low pressure stream convertor and the individual room temperature requirements are obtained by a pneumatic control system. Both the high pressure and low pressure steam is brought into the building via a steam underground service from the main University Power Plant. The high pressure steam is used for the autoclaves and the steam cleaning room. The illumination is primarily provided by fluorescent lighting.

Provincial Mental Institute, Edmonton (Oliver)

Construction of a Cold Storage Warehouse was started on November 18th, 1963, and completed in March, 1964, on the site of the Provincial Mental Institute. This Warehouse is similar in nature to the Warehouse for the British Columbia Forestry Service located at the Duncan Nurseries on Vancouver Island. It is used for the storage and holding of tree seed and seedlings. The storage area consists of two rooms (1,610 cubic feet each) operating at 0° F. and one large room (13,473 cubic feet) operating at 34° F., plus a work area. The nature of the storage facilities is that the 0° F. operating rooms are for storing the seeds and the 34° F. operating room is for storing the tree seedlings. All the storage space is actually exposed to the outside conditions with the tree nursery holding area opening directly to the outside. Thus these areas are subjected to a fully controlled mechanical refrigeration system and a forced convection electric heating system thereby maintaining the operating temperatures during the low ambient conditions prevailing outside and refrigeration taking over when the temperature rises into the 40° F. and over range. Construction of this Warehouse is of reinforced concrete foundation with concrete block masonry walls and the interior finish is plywood panels. The roof construction is wood framed having plywood decking and built-up gravel surfaced roofing.

Deerhome Institution, Red Deer

Construction of two new Dormitories (#7 and #8) was started on February 10th, 1964. These are steel framed concrete structures having hollow clay tile interior partitioning and back-up walls to face brick veneers. Roof construction is of reinforced concrete slab with rigid insulation and built-up gravel surfaced roofing. Interior finishes are terrazzo, mosaic ceramic tile and vinyl asbestos tile to floors, terrazzo dados, plaster walls and suspended plaster ceilings. Fenestration consists of sealed glazing units in double hung wood sash and frames with glass block panels. Accommodation provided by these two buildings is four-bed dormitories, single bedrooms, day rooms, dining rooms, treatment rooms, nurses' stations, bathrooms, utility and linen rooms. The mechanical system incorporates three multi-zone heating and ventilating units with steam heating coils. A proportional amount of fresh air and return air is mixed and passed through the steam coils to achieve the required temperature for heating the building and then transferred via ductwork to the various areas. Provision has been made for supplying future cooling equipment. Steam supply for the coils is obtained from the main power plant.

Provincial Training School, Red Deer

Construction of a new Infirmary Building commenced on January 6th, 1964, and is of reinforced concrete, concrete block masonry and brick veneer masonry construction. Fenestration consists of sealed glazing units in wood frames to all rooms except activity rooms and the reception area which have wood framed curtain walls of sealed glazing units and insulated sandwich panels. The roof is constructed of steel joists supporting steel decking cast in-situ concrete slab, rigid insulation and built-up gravel surfaced roofing. The interior finish is of plaster and ceramic tile walls, suspended acoustic and plaster ceilings, resilient type and ceramic mosaic floor tiles. The following accommodation is provided: six 10-bed wards, nurses' stations, lavatories, bathrooms, isolation wards, activities rooms, utility rooms, storage rooms, solariums, reception and waiting rooms, kitchens, dining rooms, administration staff locker rooms and washrooms, mechanical equipment rooms. The heating and ventilation of the building are provided by two multi-zone heating and ventilating units with steam coils producing the hot air which is supplied via ductwork throughout the building.

The steam is obtained from the main power plant via a steam chase. During the summer months the main floor is cooled by flooding the roof. The illumination is provided primarily by fluorescent lighting. A complete fire alarm system, internal telephone system and music system have been installed throughout the building. The music system consists of an AM/FM tuner located in the central nurses' station with wall mounted speakers installed at various locations.

Construction of a Services Building was started on January 6th, 1964. This building is a steel framed structure with reinforced concrete foundation, concrete block masonry walls and back-up, face brick veneers. The roof is of steel joists supporting steel decking, rigid insulation and built-up gravel surfaced roofing. Fenestration consists of sealed glazing units in wood or steel frames. Interior finishes are of glazed concrete block, ceramic tile, plaster walls and ceilings, acoustic tile ceilings, terrazzo, quarry tile, resilient tile.

This building houses the kitchen and laundry facilities and provides for the following services: laundry, soiled linen room, clean linen room, sewing room, kitchen complete with space for food preparation, refrigerators, dishwashing room, staff dining room, staff locker rooms and washrooms. The building is heated by a three zone forced hot water perimeter heating system. The hot water is generated by three low pressure steam convertors, the steam being obtained from the main power plant via a circular "Armco" steam chase. The building is fed with high and low pressure steam; the high pressure steam is for the laundry equipment and the low pressure steam is for the heating system. The building also has a complete supply and exhaust air system. The electrical system is provided by a high voltage cable into a transformer which is then distributed in three phase, four wire, at 208 volts. A specially built truck is supplied so that food carts can be conveyed to the various buildings. This truck is equipped with a small electric generator so that food carts can be plugged in and the food kept warm; it has an hydraulically operated platform.

Department of Highways

During the past year maintenance garages have been constructed, or are under construction, for the Department of Highways at the following locations throught the Province:

4-stall Garages
High Prairie
High River
Consort

8-stall Garages
Grande Prairie
Southeast Edmonton

These buildings are of standard design and construction having reinforced concrete floor slabs and foundations. Walls are of insulated wood frame with plywood interior cladding and stucco exterior cladding. Roof construction is flat tongued and grooved decking supported by glue-laminated wood columns and beams. Roofing material is four ply built-up gravel. Windows are wood framed double hung sash with single glazing storm sash. Access to the vehicle service bays is by four or eight overhead doors (depending upon the location). Each garage is provided with storage, office, utility and washroom accommodation. The garages are heated by gas-fired hot air furnaces and unit heaters and have full electrical, water and sewer services.

Department of Lands and Forest

To provide washroom facilities in the Provincial Park at Elkwater Lake, a comfort station was constructed. This is a concrete block masonry structure on reinforced concrete foundations with wood flat roof and built-up roofing.

A warehouse, 3,250 square feet in area, was constructed at Whitecourt for the Department of Lands and Forests. Construction consists of a reinforced concrete floor slab with foundations. Exterior and interior walls are concrete block insulated masonry. The insulated roof deck is supported on glue-laminated beams and surfaced with built-up gravel roofing. The warehouse is heated by a propane gas fired furnace forcing hot air through ductwork and dispersing it throughout the shop area via supply grilles. The warehouse area itself is heated by means of propane gas fired unit heaters.

Oil & Gas Conservation Board

A large open concrete block masonry addition to the existing Core Storage Building was constructed for the Oil & Gas Conservation Board in Calgary. The foundations are of reinforced concrete; the concrete roof having rigid insulation and built-up gravel surfaced roofing. Heating of the building is accomplished by four gas fired unit heaters thermostatically controlled.

Department of Provincial Secretary

Northern Alberta Jubilee Auditorium, Edmonton

The front portion of the main stage which originally covered the orchestra pit has been replaced by an hydraulically operated stage. The design was developed by the Department of Public Works in close co-operation with the Auditorium Management Committee. The hydraulic stage is in two sections; a large section used primarily as an orchestra playing deck and a smaller section used primarily as a freight elevator. The two sections may be used simultaneously or independently and may be positioned at any height between the base and the main stage floor level. Two pumps provide hydraulic pressure and are so arranged that in the event of the failure of one pump, the operation is maintained by the other, though at reduced speed. The Department of Public Works maintenance staff worked with the elevator contractor during the installation period of June to September, 1963. The specifications of the above are as follows:

	Small Unit	Large Unit
Total Travel	8 feet, 10 inches	7 feet
Approximate size of stage	15 feet by 12 feet	50 feet by 14 feet
Approximate speed	10 feet per minute	10 feet per minute

Superimposed Loads (both units)

Moving	50 pounds per square foot plus 1,000 pounds concentrated load
Stationary	100 pounds per square foot plus 1,000 pounds concentrated load

It is expected that an identical stage will be installed in the Southern Alberta Jubilee Auditorium in Calgary, in 1964.

Department of Public Welfare

During the past year Homes for the Aged have been constructed, and were under construction, for the Department of Public Welfare at the following locations throughout the Province:

Crossfield
Edmonton — Belvedere Site #2
Hanna
Lethbridge Site #2
Myrnam
Vulcan

Homes for the Aged may consist of a single lodge building or be in the form of a complex consisting of a lodge building, four suite cottages, one and two person combination cottages with a service building.

Accommodation provided in the various buildings are:

Lodge: single and double bedrooms complete with washroom facilities and closet space; dining room, lounge, library, occupational thereapy room, visitors' room, kitchen, laundry, matron's suite, staff rooms, administrative space. All this space is provided for on the main floor. In the basement there is a boiler room, vault and storage rooms.

Four Suite Cottages: each suite accommodates two persons and has a living room, bedroom, kitchen and bathroom with a central laundry area serving all four suites.

One and Two Person Combination Units: these units consist of two suites, each accommodating one person, having combination living and dining rooms, bedroom, kitchen and bathroom; the other two suites accommodate two persons each and are planned exactly the same as the suites in the four suite cottages. A central laundry area serves all suites.

Service Building: this provides workshop facilities, storage and meter rooms.

Construction of all the buildings is similar; reinforced concrete foundation walls and footings, crawl spaces under the floors, basement to part of buildings having concrete masonry and wood framed partitioning, wood framed exterior and interior walls. The exterior finish is stucco and vertical wood sidings, fire walls are of concrete block masonry. Roof construction is wood framed with Stramit decking finished with a built-up gravel surfaced roofing. In the lounge a fireplace is provided which is constructed of brick and concrete block masonry. Interior finish to walls and ceilings is gypsum plaster; floor coverings are the resilient types of various tile, etc. Fenestration consists of double hung sash to bedrooms and service areas, window walls to therapy, dining, lounge, library and visitors' areas. The service building is of reinforced concrete masonry and concrete block masonry construction; wood framed roof construction with insulation and built-up gravel surfaced roofing.

Welfare Centre, Gunn

Two new six-man houses, the first of a complex of eight houses were constructed at this Centre this year. They contain six single bedrooms and a common sitting room and construction is wood framed throughout on reinforced concrete slab foundation; wood framed pitched roof construction surfaced with plywood sheathing and asphalt shingles. Exterior wall cladding is stucco, vertical V-joint siding and plywood panels. Interior finish is plaster walls and ceilings; floor covering is vinyl asbestos. Tenders were called for and a contract was awarded in September, 1963, for construction of a complete water supply and sewerage system for this Welfare Centre. Included in the project is a water well, water storage reservoir and water lines to ensure an adequate and dependable water supply for fire protection as well as to meet domestic requirements. The sewerage system, which greatly improves sanitary conditions at the Centre, includes gravity lines, a sewage lift station and the final disposal to a lagoon.

Department of Public Works

Workshops Building, Lethbridge

This building has been constructed to provide building trades workshop facilities for the Department of Public Works. Construction consists of a reinforced concrete floor slab with foundations. Exterior walls are concrete block with interior wood framed partitions with drywall finish. The flat roof is of joist construction with plywood decking, rigid insulation and four ply built-up gravel surfaced roofing. Windows in exterior walls are wood framed with fixed and opening sashes.

Treasury Branch

Three Treasury Branch buildings were constructed at the following locations:

Calgary

On November 15th, 1963, construction commenced of the North Hill Treasury Branch and completion is expected in May, 1964. The building is of reinforced concrete floor slab and foundations; concrete block masonry walls with face brick veneers to exposed locations. Interior partitions are of concrete block masonry and wood framing and the building is provided with a reinforced concrete vault. The front facade is finished with extruded aluminum entrance and curtain wall. The pre-cast concrete panels to the roof have rigid insulation and built-up gravel surfaced roofing. Interior finishes are plaster walls, suspended plaster and acoustic tile ceilings; the floors are covered with the resilient type of floor tile. Accommodation is provided for a banking hall, manager's office, staff rooms and two vaults, one of which is of reinforced concrete construction. Fenestration is of wood with sealed glazing units. The heating and cooling is accomplished by a gas-fired furnace fitted with cooling coils. Cooling of the water is accomplished by an air cooled compressor condenser located on the roof.

Edmonton

Construction was started of the Southeast Edmonton Treasury Branch on December 1st, 1963, and consists of a reinforced concrete basement floor, walls and main floor slab. Exterior walls are of concrete block masonry brick veneers and brick cavity walls. The vaults are of reinforced concrete. The interior partitions are of concrete block masonry and the front facade is faced with marble veneer and extruded aluminum main entrance and curtain wall. Roof construction is of precast concrete having rigid roof insulation and built-up gravel surfaced roofing. Interior finishes are plaster walls, acoustic tile suspended ceilings, resilient type of floor coverings. Accommodation is provided for a banking hall, manager's office, staff rooms, vault storage and storage rooms. Heating and cooling of this Treasury Branch building is accomplished by the same means as that of the North Hill Treasury Branch building in Calgary.

Granum

The Treasury Branch building at Granum, construction of which commenced November 1st, 1963, and completed on February 18th, 1964, has reinforced concrete floor slab and foundations, wood framed insulated exterior walls with vertical cedar board cladding and interior wood framed walls. The front wall and main entrance cladding is wood framed curtain wall — the wood framed roof having plywood decking and built-up gravel surfaced roofing. The interior finish is Drywall; the type of floor finish is resilient tile. Accommodation is provided for a banking hall, manager's office, staff rooms, storage and a reinforced block masonry vault. Fenestration is of wood construction with sealed glazing units. The building is heated by a gas-fired furnace.

University of Alberta

Biological Sciences Complex, University of Alberta, Calgary

Tenders were called and construction started of Phase I of this complex in February, 1964. The complex consists of a Tower Building six floors high with single floor buildings adjacent and connected to the Tower Building. These adjacent buildings are the Lecture Theatre, Lobby, Museum, Library and reading rooms and four individual seminar rooms. Construction of the complex is of reinforced concrete and faced on the exterior with architectural pre-cast stonework. The interior partitioning is concrete block masonry and wood frame; built-up gravel surfaced roofing over rigid insulation; fenestration consists of sealed glazing units in wood sash and frames. Interior finishes are: Floors — quarry tile, ceramic mosaic, slate pavings, resilient type floor tile, carpet. Walls — plaster, ceramic tile, face brick. Ceilings — suspended plaster, suspended acoustic tile. The Tower Building provides accommodation for research laboratories and classroom facilities for all branches of the Biological Sciences such as Chemistry, Geology, Zoology, Physics, Biochemistry, etc. To each floor office spaces and storage spaces are included. It is expected that construction of Phase II will be started in July, 1964.

The mechanical systems for this complex are of the latest design and concept and following is a description of the systems. The building has complete air conditioning systems operating on a 24 hour basis and capable of maintaining comfortable room conditions all the year round. There are three mechanical rooms in the building, one of which is located in the southeast part of the basement and accommodates a 1,050 nominal ton absorption refrigeration machine, chilled water and condenser water pumps, domestic hot water heater, an air compressor and vacuum pumps. The second mechanical room is located in the southwest region of the basement and accommodates the air handling equipment for supplying and recirculating the air for the basement area, first and second floor areas. The third mechanical room is located in the southwest region of the sixth floor of the Tower and accommodates the air handling equipment for supplying and recirculating the air for the sixth floor down to the third floor. The total air quantity delivered to the various areas is over 182,100 cubic feet of air per minute. Fresh air is brought into the mechanical equipment room, mixed with the required percentage of return air and filtered, humidified, heated or cooled as required. The air is delivered by fans through the main distribution ducts at high velocity and diffused into the various rooms. Both the fresh air and the recirculated air are passed through charcoal filters in order to remove the poisonous and abnoxious gases that are emitted from the numerous experiments conducted in the laboratories. The 1,050 nominal ton absorption type refrigeration machine situated in the southeast corner of the basement provides cooling for the Biological Sciences Building and two other University buildings (the Science & Engineering Building and the Arts & Education Building). Provision was made in these two buildings during the planning and construction stage for future cooling. Chilled water is circulated through the Biological Sciences Building at the rate of 1,300 gallons per minute, 650 gallons each through the Arts & Education Building and the Science & Engineering Building, making a total of 2,600 gallons per minute through the system. Special refrigeration requirements are provided for the constant temperature laboratories situated in the basement. The air is cooled to —12° F. and supplied through a perforated ceiling arrangement to keep the rooms at a constant temperature of —4° F. The building is heated by a four zone forced hot water perimeter heating system steam convertor. Steam is obtained from the power plants at the Science & Engineering Building. This building is designed with a 600/347 volt distribution system and temporarily serves the Physics and Chemistry departments as well as the Biological Sciences. All areas are lighted by fluorescent fixtures and all laboratories have excellent electrical services. The Physics laboratories are also serviced by "clean power" produced by a generator within the building. The brushless generator produces an excellent wave form as well as being free of radio frequency signals which are generally present on utility power lines. A solid state rectifier system provides direct current in some laboratories while a battery system provides emergency lighting as well as uniform power source in other laboratories. Office areas are serviced with under floor ducts to provide a flexible system for electricity, telephones and intercom.

Biological Sciences Complex, University of Alberta, Calgary

Engineering Centre, University of Alberta, Calgary

Civil Engineering Building University of Alberta, Calgary

Construction of this building was started on November 5th, 1963, and it is expected to be completed in October, 1964. This is a reinforced concrete and concrete block masonry structure having artificial pre-cast stone facing panels to exterior walls. Fenestration is double glazing in wood frames to all floors; to the main entrance hall there are tall vertical steel framed single glazed windows. The roof has rigid insulation and built-up gravel surfaced roofing. Interior finish is exposed concrete block and plaster walls, suspended and attached acoustic tile to ceilings, ceramic, mosaic and resilient floor tile. Accommodation is provided for material testing, research laboratories, structural testing, design laboratories, lecture rooms, classrooms and administration offices. The heating and ventilation requirements of the building are met by large centrifugal fan units bringing in fresh air and mixing it proportionally with return air according to the temperature and seasonal requirements. A hot water heating coil is installed in the air conditioning unit to heat the air and this hot air is supplied to the various areas by a high velocity duct system. The hot water coil is heated by means of a temporary 80 horsepower gas fired boiler. This boiler will be replaced by a high temperature hot water heat exchanger when the central boiler plant that is being planned for the campus is put into operation. An extensive pneumatic control system allows for individual control of the heating systems in various parts of the building. Provision has been made for the installation of approximately 120 tons of refrigeration for cooling purposes in the future. In order to reduce the noise level of the system in the classrooms, provision has been made for the use of sound absorbing duct linings and anti-vibration mountings for the equipment.

Library, University of Alberta, Calgary

The construction of this project commenced in January, 1963 and was completed in early October, 1963. The development procedure for this Library will be similar to that of the new Donald Ewing Cameron Research Library on the Edmonton Campus of the University of Alberta, with provision for additional wings to be added as the need arises.

The first portion of this Library consists of four floors. The exterior is "re-constructed" of synthetic granite facing panels, divided by tall pre-cast concrete frames and bronzed fins. The windows are shielded from the sun by "bronze-glass" sunscreens which appear to "float" free from the main building. This is similar to the recently constructed U.N.E.S.C.O. Building in Paris, France. Interior wall and floor finishes approximate those of the Edmonton Library.

The main floor accommodates all administrative library departments including circulation, union catalogue, bibliography and processing. Periodicals, reference and reserve reading rooms are also on this floor.

The basement houses the staff lockers and washrooms, student washrooms and student lunch room; the remaining space is divided by temporary partitioning to provide urgently needed classrooms. General book stack and reading areas occupy most of the second and third floors. The third floor also includes audio-visual, micro-film storage, faculty study carrels, librarian offices and board room. The fourth floor contains approximately 60 faculty offices, faculty and staff lounges with kitchen facilities and a computer centre.

The mechanical and electrical system are similar to the Library in Edmonton with the one exception that the air conditioning system is a dual duct system with terminal mixing boxes controlled by zone thermostats.

The Donald Ewing Cameron Research Library
University of Alberta, Edmonton

This new Library, construction of which commenced in January, 1963, was completed in September, 1963 and is located immediately west of the Arts Building, closely nestled between the north and south Laboratory Buildings. These buildings will, in the future, be moved to provide for the expansion and completion of the Library.

The Library building consists of five floors. The exterior is of light coloured Travertine panelling set between bronze coloured fins and capped with a bronze metal chevron formed cornice. This chevron motif is repeated at the main entrance which is graced by tall slender columns of classic design. The interior of the building has a plaster wall finish with ceramic tile being used in crush halls, etc. The floors are rubber tile and terrazzo.

The main floor houses all administrative library departments, including circulation, union catalogue, bibliography, general order office and cataloguing. The reference and periodical departments are also on this floor.

The basement floor includes the following: Staff lockers and washrooms, staff and student lunch rooms, student washrooms, document stacks, maps, binding, periodical storage, audio-visual, micro-film storage, archives, photo lab, and rare books. The vault storage is in the sub-basement.

The second, third, fourth and fifth floors contain all general book stack and reading areas including faculty cubicles. The fifth floor also houses document storage and the chief librarian, assistant librarian and general office. Smoking areas are provided on the second, third and fourth floors.

The mechanical equipment systems in the Library building are of the latest design and concept. The following is a brief description of the equipment and systems within the building.

The library has complete air conditioning systems operating on a 24 hour basis and capable of maintaining comfortable room conditions all the year around. Provisions have been made for future expansion of the building and several of the existing systems have been sized for future capacity. The air conditioning consists basically of the following systems: an air induction system which conditions the peripheral wall areas, except the basement area; a single duct system with terminal hot water booster coils controlled by zone thermostats. This serves the book stack areas of the second to fifth floors, inclusive; a dual duct system with terminal mixing boxes controlled by zone thermostats. This system serves the complete basement, the interior areas of the main floor and part of the floor areas of the second to fifth floors; a hot water heating system with a two pipe, reverse return system with wall fin and convector radiation serving the peripheral wall areas of the basement in addition to the stairwells, washrooms, storage areas, etc., throughout the building; a separate rare book system consisting of a packaged air conditioning unit with steam reheat coils and special duct humidifiers to serve the rare book room, the archive room and the microfilm rooms located on the basement floor and also the vault which is located in the sub-basement.

The main service feeding the building is an underground 13.8 kilowatt ring-main service from the University underground distribution. This is transformed to a main distribution of 347/600 volts three phase. All fluorescent lighting and the larger motors operate on the 347/600 system, while receptacles, incandescent lighting and smaller motors operate on the 120/208 volt system. This voltage is provided by further transformer banks.

The building is almost entirely lighted with a special 10 inch wide fluorescent light fixture. Duplex receptacles and 20 amp. cleaning outlets have been located throughout the building for convenience. A 50 line, 3 channel intercom system has been installed throughout the building. The system has automatic cross bar switching and has secretarial and conference features.

A non-coded, supervised, zone annunciator fire alarm system incorporating automatic alarms in the supply ducts has been installed in the Library. The system is tied into the power house and the City fire department.

All systems have been designed, sized and installed to easily facilitate the addition of the two future wings.

Education Building, University of Alberta, Edmonton

Construction of this building, which is located on 87th Avenue between 112th and 114th Streets on the University Campus, started in January, 1962 and was completed in August, 1963.

The building complex consists of three district units, i.e., a ten-storied tower for administrative staff with two four-storied classroom wings adjoining, plus a two-storied library and a large gymnasium.

The exterior wall facing on the tower and the classroom wings is of pre-cast concrete panelling having a white quartz aggregate and black granite chips. The gymnasium exterior has a pierced concrete block screen in concrete frame. The library is clad with a sculptured-type of pre-cast concrete panel with white quartz aggregate. All windows are aluminum with double glazing. The classrooms have all been provided with "blackout" blinds for audio-visual instruction. The interior wall finishes are generally exposed, painted concrete block with a minimum of plastered and wood panelled walls. The floors are various types of vinyl tiles.

Complete air conditioning is provided in the administrative tower, the library and the gymnasium, while a good ventilation system with provision for a cooling system in the future is installed for the classrooms. The high pressure steam and the low pressure steam lines are brought from the main plant. Illumination is generally fluorescent lights.

The classroom wings are designed for the addition of two additional floors in the future, while the library is capable of having one extra floor added.

Nuclear Research Centre, University of Alberta, Edmonton

Phase II of this project (the Tower Building) was completed at the end of September, 1963, under the supervision of the Department of Public Works maintenance crews.

Construction of the Addition (Phase III) was started on March 16th, 1964, and is expected to be completed in November, 1964. This is a two-storied, reinforced concrete and concrete block masonry structure with face brick veneer. The roof is constructed of reinforced concrete slab, rigid insulation and built-up gravel surfaced roofing. Fenestration consists of sealed glazing units in extruded aluminum frames. Interior finishes are terrazzo, mosaic tile, quarry tile and vinyl asbestos to floors, glazed ceramic dados, exposed concrete and concrete block, suspended plaster or acoustic tile ceilings. Accommodation has been provided for service rooms, hot labs, mechanical room, development areas, electrical control rooms, research and machine servicing areas, study rooms and offices. The building periphery is heated by wall hung hot water radiation. A low pressure convertor generates the hot water for the system; ventilation is accomplished by a large centrifugal fan unit bringing in fresh air and mixing it proportionally with return air according to the seasonal and temperature requirements. The air is passed through the building by a low velocity duct system.

A further addition (Phase IV), which is to be totally below ground, is planned for the future.

Steam Lines, University of Alberta, Edmonton

Construction commenced in April, 1963, and was completed in March, 1964, of a new six inch high pressure steam and four inch condensate line to run from the new Library manhole #27A, via a new steam chase, to the manhole at a point south of the Biology Wing. The new sixteen inch low pressure steam branch line is to be tied in to the existing sixteen inch low pressure system. The three new lines (six inch high pressure steam, four inch condensate and the sixteen inch low pressure steam lines) are to be combined in a single new chase and continue via routing to the existing walk through tunnel. The three lines are to be capped and made ready for connecting to future services for the proposed Social Sciences Building. The manhole has been modified to accommodate future extension of the steam ring main to cover all future buildings as required on the University Campus.

Structural Engineering Laboratory, University of Alberta, Edmonton

Construction of this Laboratory was completed in mid-October, 1963, and it is located east of the existing Hydraulics Building. This building is part of a future Engineering Complex to be constructed on the Campus. Graduate students enrolled in the structural engineering programme of the Department of Civil Engineering use the facilities of the laboratory. The load bed, the only one in Canada built to date, is used to test the strength of beams and columns of various materials.

The building is 112 feet by 89 feet wide. The main laboratory is 112 feet long by 61 feet wide and 35 feet high. The remainder of the building is divided into two floors with the offices being located on the second floor. The construction of the building is:

(a) Concrete grade beams on piles.

(b) Steel rigid frames and steel roof deck.

(c) Brick veneer with concrete block backing.

The building is equipped with a 10 ton electrically operated crane in the main laboratory which is inter-connected with a monorail located in the secondary laboratory where small specimens are prepared for testing. This secondary laboratory is also equipped with large bins for storing various aggregates. An aggregate elevator and conveyor to fill the bins is also provided.

The building periphery is heated by wall hung hot water radiation and a fan coil unit supplies hot air from an under slab duct floor grille arrangement to the large glassed lobby areas. The laboratory area is ventilated by a make-up fan coil unit; this unit supplies fresh air to the occupied and test instruments zones while the air is exhausted at the dusty aggregate and testing zones. The offices are ventilated with provision made for installing future cooling equipment. The curing room is maintained at 100% humidity and 75° F. by an automatic hot and cold water mixing system.

The high voltage service feeding the building is an underground 4,160 volt service from the University underground distribution system. A transformer and sub-station is installed to feed the main low voltage distribution system. A complete mercury overhead lighting system is installed.

Student Housing Complex, University of Alberta, Edmonton

Tenders were received in August, 1962, for the Student Housing Complex on the University of Alberta Campus in Edmonton. These buildings consist of two eleven-storied residence buildings and the Food Services Building. The Food Services Building, subsequently named Lister Hall, was completed in September, 1963. Since that time the building has gained the distinction of being awarded a first place in the annual Institutions Magazine Food Service Award Program. This magazine is the leading publication in its field in North America and sponsors an annual competition for excellence in design related to food service. The awards are very highly regarded in the industry.

The Residences, which are of reinforced concrete and masonry construction, will provide accommodation for 609 students in each building and are expected to be completed in May, 1964. The majority of the students will be accommodated in double rooms while some single rooms are available on each floor. Each floor also has the usual complement of washrooms and bathrooms, and common lounge areas, together with a small kitchenette and hand laundry room and a study alcove. The main floor of each residence includes a Warden's suite, a library reading room, a small guest suite and a reception office, while the basement floor has a students' recreation room and music practice rooms. Each building is served with two high-speed passenger elevators. Finishes throughout the residences are modest. A third feature building of the same shape and size is allowed for in the planning.

FIRST AWARD for superlative achievement in food service and sanitation: University of Alberta, Lister Hall, Edmonton, Alberta, Canada.

Submitted by: Fred Schmid Associates.

Designers: Fred Schmid Associates; Dr. E. L. Empey, University of Alberta; Miss E. G. Cairns, University of Alberta; Department of Public Works, Government of the Province of Alberta.

Fabricator and installer: Arnett and Company.

Eighteenth Annual Food Service Contest.

INSTITUTIONS MAGAZINE

Two Student Residences and Food Services Building (Lister Hall) in the left foreground, University of Alberta, Edmonton.

Alberta Liquor Control Board

Alberta Liquor Control Board Stores

During the past year Liquor Stores have been constructed or are at present under construction for the Alberta Liquor Control Board at the following locations throughout the Province:

Athabasca
Grimshaw
Leduc
Strathmore
Whitecourt

These buildings are of the same basic construction consisting of reinforced concrete foundations and concrete block masonry exterior walls. The interior partitioning is wood framed with dry-wall finish. Roof construction is either pre-cast concrete tees or glue-laminated beams and tongued and grooved decking, surfaced with rigid insulation and built-up gravel surfaced roofing. The front wall of the building may consist of extruded aluminum curtain wall with entrance or a field stone veneer with concrete block masonry back-up and extruded aluminum entrance. Accommodation consists of the store area ,warehouse storage area, heating room and staff rooms. They are heated generally by gas fired warm air furnaces and have complete plumbing facilities. Unit heaters warm the warehouse and lawn watering services have been supplied for grounds maintenance.

MECHANICAL BRANCH

Report For Fiscal Year Ending March 31, 1964

F. E. COE, Mechanical Superintendent

This report covers briefly the operation and maintenance of Power Plants and larger heating plants serving major Provincial Institutions and other establishments in the Province. These plants total eighteen in number. They function to supply heat, power and utility services as required for the area.

The power plant statistical figures attached show a nominal production or load increase only and corresponding operational cost. The heating plant figures show approximately a twenty-five percent increase over last year in operational cost. This is due to full enrollment and use of teaching facilities having been attained at the Northern Alberta Institute of Technology. Capital money expenditure for all plants is reduced by approximately forty percent of corresponding expenditure last year.

The following notes cover the more particular items of opera tion, maintenance and installation.

Baker Memorial Sanatorium, Calgary

Installation of a 20,000 sq. ft. EDR rating motor driven centrifugal vacuum pump unit purchased last year has been completed. This unit replaces obsolete steam driven pumps now deleted from service.

Public Works South Power Plant, Edmonton

This plant is now largely carrying the total load of hospital, University of Alberta and other areas served. Steam production was 685,830,000 pounds as compared to 380,000,000 pounds last year and electrical load exceeded 52,000,000 KWHrs. as against 42,000,000 KWHrs. last year. A total of 7,000 hours operation was logged for the 5,000 KW. steam turbo-alternator unit installed last year. The University of Alberta (North) Plant was still maintained in reserve operation throughout the year. Buildings of the area completed and put into service during the year included the Education Building, Research Library and the Food Services Building. Buildings not completed, which will later further increase plant load, include the two Student Residences.

Some minor expenditure was made to purchase miscellaneous tools for the plant maintenance shop and to install the lathe and drill press purchased last year.

Legislative Buildings, Edmonton

The installation of a 125 KVA Diesel-Electric generator set and load transfer panel has been completed and the unit is now available for emergency or planned service.

An old horizontal steam engine-alternator unit of 340 KVA rating, built about 1919 and purchased second hand and installed in the plant in 1938, has been deleted from service and removed. Foundation alterations have been made for installation of a 625 KVA vertical engine-alternator unit in its place. This latter engine will be moved over from the University of Alberta (North) Plant, where it is no longer required, early in the new year.

Additional panels, purchased last year for the plant 2.3 K.V., 5,000 KVA main switchboard have been installed and wiring connection completed.

Provincial Gaol, Fort Saskatchewan

A condensate returns storage tank, 8′ x 5′ x 6′ SWD, required to duplex existing installation, was fabricated in place in the pump room basement. All piping and insulation is completed and the tank is in service.

We note here the retirement of Mr. M. C. Leek, Chief Engineer of this plant since December 17th, 1949, on reaching age sixty-five years, November 8th, 1963. He had been twenty-four years in the employ of this Department. Charge of the plant was then assumed by our Mr. F. W. Wilson, transferred from a like position at the Provincial Auxiliary Hospital, Claresholm.

Provincial Gaol, Lethbridge

Plant building addition to house the new 15,000 Lb/hr. boiler has been completed. Installation of the boiler, which was moved into place last year, was completed by late summer and the unit put into service October 4th, 1963 for plant winter load operation.

Installation of the new 20,000 Lb/hr. feedwater heater, feed pumps and other auxiliary equipment, purchased and delivered last year, was also completed on early schedule and the equipment put into operation with the new boiler.

There now remains some old equipment to be removed from the plant engine room and minor building alterations to be effected to provide better access to the basement areas.

Provincial Mental Institute, Oliver

Installation of the 30,000 Lb./hr. boiler, purchased and delivered to the plant last year, was completed in early summer and the unit put into initial operation July 10th, 1963. In early October it was taken "off" the line for complete checking, found satisfactory and returned to service for the winter months of operation.

Apparatus as required for completion of "spare" cubicle of the plant 2.3 K.V. switchboard was purchased, installed and wired for 750 KVA utility power service connection. This connection permits of better operation scheduling of plant generating equipment and particularly assures the Institution of adequate electrical power supply in the event of any forced outage of the larger plant machines.

Provincial Mental Hospital, Ponoka

Atmospheric (dry air) type condenser equipment was purchased and delivered in late winter to the plant. Footings and foundation are constructed in preparation for erection of the unit in the new year. It is desired to have it in operation by early summer. It will function to largely eliminate exhaust steam going to the atmosphere and return it instead as condensate — reducing boiler feedwater make-up and treatment costs.

Provincial Training School, Red Deer

Erection and installation of the 500 KVA steam turbo-alternator unit purchased last year progressed sufficiently to permit trial operation in early October, 1963. Following final check, completion of installation and electrical connection to switchboard, the machine was put into plant service early in December.

Two 48" dia. x 14' 0" lg. steel hot water tanks, condemned on last inspection, were removed from the plant and replaced with two Everdur (non-ferrous) storage type heaters purchased and delivered to the plant last year.

Additional condensate returns storage tank has been fabricated in place in the plant pump room basement. All piping and insulation covering, etc., will be done in the coming year.

A motor driven centrifugal boiler feed pump of 20,000 lbs./hr. capacity has been purchased to replace an old, now inadequate, duplex steam pump and provide emergency standby service for No. 1, 2 and 3 boilers. Installation and piping renovation is scheduled for early work of the new year.

Deerhome Institution, Red Deer

There has been purchased and delivered to the plant a 156 KVA steam engine-alternator unit. Construction of foundation for the unit is completed and erection and piping installation will proceed in the new year. This set will operate as a basic "reducing valve" generating an estimated 750,000 KWHrs. of electric power per year, exhaust to low pressure steam services and effect some reduction of power service demand.

An air compressor unit to duplex existing equipment in the plant has been purchased and installed. Certain additional water circulating pumps and controls required for the laundry service water heaters have also been purchased and installed.

It is with regret that we note the loss, by death, of our Mr. E. G. Gardiner, Chief Engineer of this plant. Mr. Gardiner, at age 52 years, passed away quite sudden of a heart attack on May 6th, 1963. Our Mr. J. E. Shannon, Shift Engineer, assumed the duties of Acting Chief Engineer until September 1st, 1963, when the vacancy was filled by appointment of Mr. J. H. Jentink as Chief Engineer. The appointment was a promotion and transfer for Mr. Jentink from the Provincial Mental Hospital plant at Ponoka.

Provincial Gaol, Calgary

A 304 Kg.R. zeolite water softener unit, required to duplex existing equipment, was purchased and installation completed.

Construction of a natural gas service line for the Gaol was started in early summer by Canadian Western Natural Gas Co. and some supply (to the residences of the area) commenced on August 15th, 1963. Conversion of all boilers in the plant from oil firing to gas firing was completed in late November. Fuel oil is now used only as stand-by for emergency or other firing. About 8,000 gallons is maintained in underground tank storage for such requirement.

Northern Alberta Institute of Technology, Edmonton

As mentioned in commencement of this report this Institute was in full scale operation for the year with consequent increased load on the plant and services. Steam generation totalled 118,444,000 pounds. Water consumption was 15,828,000 gallons. Electric power consumption totalled 6,928,800 KWHrs. at a cost of $63,340.00 approximately.

We note there is money provided in the current 1964/65 Capital Appropriations of this Department to plan and commence further construction at this Institute. Any additional major building construction will make necessary the purchase and installation of additional boilers and auxiliary equipment in the Heating Plant as originally planned.

A nominal amount of $1,000.00 was expended for miscellaneous tools, chain blocks, etc., for plant operation and maintenance use.

Again, it is with regret that we note the loss by death of another employee. Mr. Orvil G. Bailey, Shift Engineer, at age 46 years, passed away of a heart attack on August 29th, 1963.

PROVINCIAL GOVERNMENT POWER PLANT STATISTICS

For Year Ending March 31, 1964

	FUEL		WATER		ELECTRICITY		STEAM OUTPUT		EXPENDITURE
Locaton of Plant	Fuel Oil (Imp. Gals.)	Gas (cu. ft.)	Pumped from Local Sources (Imperial	Purchased Gallons)	Generated (Kilowatt	Purchased Hours)	To Building Heating (Pounds)	To Other Services	Plant Operation and Institutional Maintenance
Baker Memorial Sanatorium, Calgary	60	82,936,000	51,161,000	—	657,600	81,200	43,746,000	14,582,000	$ 82,549.13
Southern Alberta Institute of Technology, Calgary	—	148,601,000	—	21,600,000	954,700	3,550,100	80,672,000	20,140,000	137,144.81
Provincial Auxiliary Hospital, Claresholm	100	35,755,000	—	6,154,000	20,600	997,600	21,181,000	5,295,000	95,408,06
Public Works South Power Plant, University Site, Edmonton	—	963,588,000	—	19,025,000	14,711,000	37,428,800	658,397,000	27,433,000	664,582.70
Legislative Buildings and Administration Buildings, Edmonton	—	406,879,000	—	160,664,000	6,714,700	10,388,000	229,303,000	98,273,000	275,228.89
Provincial Gaol, Fort Saskatchewan	—	77,414,000	18,640,000	—	616,800	559,200	45,194,000	11,299,000	75,829.10
Provincial Gaol, Lethbridge	—	51,093,000	—	18,313,000	482,500	22,100	31,678,000	7,920,000	74,176.14
Provincial Mental Institute, Oliver	—	276,247,000	—	75,299,000	4,354,400	92,400	115,508,000	110,976,000	164,913.73
Provincial Mental Hospital, Ponoka	1,000	235,806,000	55,842,000	—	3,072,000	744,600	118,772,000	63,954,000	180,239.55
Provincial Training School, Red Deer	500	107,062,000	—	30,335,000	1,123,900	490,800	53,485,000	28,799,000	109,852.84
Deerhome Institution, Red Deer	840	120,269,000	—	39,619,000	—	3,348,800	72,649,000	24,216,000	142,746.06
	2,500	2,505,650,000	125,643,000	371,009,000	32,726,200	57,703,600	1,470,585,000	412,887,000	$2,002,671.01

Total Fuel Oil Used	2,500	Gallons.
Total Gas Used	2,505,650,000	Cubic Feet.
Total Water Used	496,652,000	Imperial Gallons.
Total Electricity Used	90,429,800	Kilowatt Hours
Total Steam Generated	1,883,472,000	Pounds

GAS, WATER AND POWER CONSUMPTION

at the below mentioned Heating Plants under the jurisdiction of the

MECHANICAL BRANCH — DEPARTMENT OF PUBLIC WORKS

for period April 1, 1963 to March 31, 1964

	HEATING OIL (Gallons)	GAS (Cu. Ft.)	WATER (Imp. Gallons)	POWER (Kilowatt Hrs.)	EXPENDITURE Plant Operation and Maintenance
Bowden Institute, Bowden	—	39,889,000	16,500,000	753,600	$ 74,996.19
Provincial Goal, Calgary	86,780	20,244,000	17,671,000	966,700	70,641.70
Rosehaven Home, Camrose	—	47,381,000	11,236,000	699,700	73,783.55
Belmont Rehabilitation Centre, Edmonton	—	27,907,000	4,900,000	423,300	50,149.94
Alberta Institute for Girls, Edmonton	—	18,508,000	4,900,000	351,500	35,837.37
Alberta School for the Deaf, Edmonton	—	32,018,000	8,823,000	987,200	57,599.98
Northern Alberta Institute of Technology, Edmonton	160	122,895,000	15,828,000	6,928,800	134,230.42
	86,940	308,842,000	79,858,000	11,110,800	497,239.15

Total Fuel Used	86,940 Imp. Gallons.
Total Gas Used	308,842,000 Cubic Feet.
Total Water Used	79,858,000 Imp. Gallons.
Total Power Used	11,110,800 Kilowatt Hours.

STATISTICS ON CAPITAL EXPENDITURES — PROVINCIAL GOVERNMENT POWER PLANTS

For Year Ending March 31, 1964

(F. E. COE — Mechanical Superintendent)

	Oil Storage Tanks, Water Storage Tanks, Heaters, Piping, Water Softeners, Pumps, Insulation	Generating Equipment, Engines, Switchboards, Wiring, Engine Foundations	Power Plant Maintenance Equipment	Installation of Boilers, Fans, Burners and Piping Insulation, Controls, Air Compressors, etc.	Atmospheric Condenser, Piping, Foundation, Insulation Controls	Building Extension	Expenditure
Baker Memorial Sanatorium, Calgary	1,476.46	—	—	—	—	—	$ 1,476.46
Public Works South Power Plant, Edmonton	—	415.22	1,083.80	—	—	—	1,499.02
Legislative Buildings Power Plant, Edmonton	—	13,978.93	—	—	—	—	13,978.93
Provincial Gaol, Fort Saskatchewan	937.24	—	—	—	—	—	937.24
Provincial Gaol, Lethbridge	8,892.01	—	—	9,115.54	—	—	18,007.55
Provincial Mental Institute, Oliver	—	6,827.34	—	9,789.02	—	—	16,616.36
Provincial Mental Hospital, Ponoka	—	—	—	—	19,099.17	—	19,099.17
Provincial Training School, Red Deer	4,727.85	6,393.93	—	—	—	—	11,121.78
Deerhome Institution, Red Deer	—	44,310.49	—	2,130.52	—	—	46,441.01
Provincial Gaol, Calgary	1,177.78	—	—	—	—	—	1,177.78
Northern Alberta Institute of Technology, Edmonton	—	—	966.55	—	—	—	966.55
	17,211.34	71,925.91	2,050.35	21,035.08	19,099.17	—	$131,321.85